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Academic Science and Engineering: R&D Expenditures

Fiscal Year 1992

Detailed Statistical Tables

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Division of Science Resources Studies
Directorate for Social, Behavioral and Economic Sciences

National Science Foundation

NSF 94-324

Academic Science and Engineering: R&D Expenditures

Fiscal Year 1992

Detailed Statistical Tables

M. Marge Machen, Project Officer

Division of Science Resources Studies
Directorate for Social, Behavioral and Economic Sciences

National Science Foundation

NSF 94-324

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Contributors

Data collection, preparation, and tabulations were performed by Quantum Research Corp. for the National Science Foundation. The Project Officer for this report was M. Marge Machen.

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GENERAL NOTES

The data presented in this report were compiled from the National Science Foundation's (NSF's) fiscal year (FY) 1992 Survey of Scientific and Engineering Expenditures at Universities and Colleges. They refer to science and engineering (S&E) expenditures for separately budgeted research and development (R&D). Terms used in institutional accounting procedures are incorporated throughout the tables.

The term "separately budgeted R&D expenditures" includes all funds expended for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution. "Expenditures" are funds actually spent by an institution during its fiscal year. "Separately budgeted R&D equipment purchased from current funds" includes all research equipment purchased under sponsored research project awards.

"Federally funded research and development centers" (FFRDCs) are R&D-performing organizations that range from the traditional contractor-owned/contractor-operated or Government-owned/contractor-operated organizational structures to various degrees of contractor/Government control and ownership. FFRDCs are formed to achieve particular Federal R&D objectives that cannot be met as effectively by existing organizations.

The terms "imputation" and "imputed data" refer to the computerized process by which NSF develops estimates of data when institutions do not furnish the information upon request. Using this process, estimates are developed that are based primarily on key data items reported in prior years' surveys when available. When not available, estimates are based on figures derived from data of respondent institutions that have similar characteristics, including highest degree granted and type of institutional control (public or private). In this publication, the letter "i" is used to identify imputed data and the letter "e" is used when institutional respondents indicated that their data were estimated or when data required slight mathematical adjustments.

Data presented in trend tables are assembled from the most recently completed survey cycle. Since prior years' data are reviewed for consistency with current year responses and, when necessary, are revised in consultation with institutional respondents, references to prior years' data should be restricted to this document.

Requests for additional information concerning the survey findings for the current or prior surveys should be directed to Ms. Marge Machen at—

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SECTION A.

TECHNICAL NOTES

Scope of the Survey

Data for the National Science Foundation's (NSF's) fiscal year (FY) 1992 report on research and development (R&D) expenditures were collected from a sample of 461 institutions of higher education in the United States and Outlying Areas. Those institutions were selected from the universe of 594 schools that grant a graduate science or engineering degree and/or perform activities for which at least $50,000 has been funded from separately budgeted R&D expenditures. The sample population includes all doctorate-granting institutions, all historically black colleges and universities (HBCUs) with R&D expenditures, and a random sample of all other institutions.

In addition, the survey includes 19 federally funded research and development centers (FFRDCs). To qualify, an FFRDC must be engaged in basic or applied research, development, or management of R&D activities, and the results of these activities must be directly monitored by the Federal Government—usually a single agency—in a relationship expected to be maintained on a long-term basis. The center must be operated, managed, and administered by either a university or consortium of universities as an autonomous organization or as an identifiable separate operating unit of its parent institution. Finally, 70 percent or more of the center's financial support must be received from the Federal Government.

Although the same survey form (NSF Form 411) is used to collect data from both academic institutions and FFRDCs, the resulting data are presented separately in this report. The survey population was reviewed prior to mailing the questionnaires to ensure that each institutional classification was accurate. Characteristics of the schools were reviewed before and during the course of the survey to determine if changes had occurred (i.e., in highest degree granted or in terms of school openings, closings, or mergers). Names of institutions newly added to the *HEP 1993 Higher Education Directory*[1] were reviewed to determine their eligibility for inclusion in this survey.

Survey Instrument

Most major R&D performers have incorporated into their recordkeeping systems the data that are essential to complete this survey, thereby ensuring a consistent format from one year to the next. Such consistency yields the most useful statistics for time series. As a rule, information to complete this questionnaire is found within the institutions' year-end accounting records.

The survey questionnaire consists of three main items:

Item 1 is a request that institutions report their total current expenditures for separately budgeted science and engineering (S&E) R&D for all activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit, i.e., research centers, within the institution by source of funds. In addition, schools are asked to provide the percentage of the total and the percentage of the federally financed expenditures that are considered basic research. Included also are research funds for which an outside organization, academic or other, is a subrecipient. Care should be observed when interpreting data on source of funds; for example, industry R&D support is limited to grants and contracts for R&D activities from profit-making organizations, and the total reported excludes research funded through unrestricted accounts and from corporate foundations, endowments, and fellowships to students. An increasing number of institutions have linkages with industry and foundations via subcontracts, thus complicating the identification of funding source. In addition, institutional policy may determine whether unrestricted State support is reported as State or as institutional funding.

Item 2 is a request for total and federally financed current fund expenditures for separately budgeted R&D activities by detailed S&E fields. Major fields remain unchanged from the FY 1991 questionnaire. When interpreting these data at the detailed discipline level, users should keep in mind that there is considerable interdisciplinary activity and/or overlap among subdisciplines.

[1] Higher Education Publications, Inc., Falls Church, VA, 1993

Item 3 is a request for the portions of total and federally financed expenditures reported in items 1 and 2 that were used for the purchase of research equipment out of current funds. This portion includes all research equipment purchased under sponsored research project awards and disbursed in the same detailed disciplines as in item 2. These data are of special interest to Federal and institutional policymakers in determining current funding levels for scientific research instrumentation.

Response Rate

The FY 1992 survey questionnaires were mailed in October 1992. Every effort was made to maintain close contact with respondents in order to preserve both consistency and continuity in the resultant data. Questionnaires were carefully examined for completeness upon receipt. Computerized facsimiles of the survey data were then prepared for each institution, comparing the current and 2 prior years' data and noting any substantive disparities. These facsimiles were mailed to the respondents so that they could provide revisions before final processing and tabulation of the data.

Respondents were asked to explain significant discrepancies between current and prior years' reporting patterns previously verified as correct. They were encouraged to correct prior years' data if anomalies were identified. When updated or amended figures covering past years were submitted, trend data were correspondingly changed by NSF. Similarly, if a respondent institution underwent an organizational change, such as a merger, NSF incorporated the effects of such changes into prior years' data.

By the survey closing date in early July, forms had been received from 456 universities and colleges out of the academic sample population of 461, resulting in a 98.9-percent response rate. Responses were received from 99 percent of all doctorate-granting institutions, where 98 percent of the R&D expenditures in S&E fields was disbursed. Also, forms were received from all 19 FFRDCs. Tables A-1a and A-1b display a detailed breakdown of the response rates by degree granted and by sampling stratum (defined later in this section under "Sampling, Weighting, and Standard Errors of the Estimates").

National Total and Imputation

To provide a national estimate for all universities and colleges performing R&D in FY 1992, it was necessary to implement three statistical procedures. First, data were estimated by "imputation" for approximately 1 percent of the sample population that had not responded by the closing date of the survey. Imputation has been used consistently since FY 1976. Second, data were either imputed or estimated for universities and colleges that submitted only partial responses. The combined imputed and/or estimated amounts, prior to weighting, totaled $52 million. Third, the sample total was weighted to compensate for those universities and colleges that were in the survey universe but not in the survey sample. (This procedure is described later under "Sampling, Weighting, and Standard Errors of the Estimates.") This process led to an inflation of $172 million in the national total of R&D expenditures at universities and colleges for FY 1992, to equal $18,880 million, as shown in table A-2. (The imputed/estimated amount was inflated to $53 million, as noted in table A-2.)

Tables A-3a and A-3b present a breakdown of both the imputed and/or estimated amounts and the amount of the weighted inflator by broad S&E fields. The dollar amount imputed and/or estimated is displayed along with the percentage it represents of the national estimate for universities and colleges in a particular field. Also given is the amount of the weighted inflator for that field. The amount imputed or estimated and the amount of the weighted inflator are similarly broken down by source of funds in table A-4.

A significant number of surveyed institutions have been responding only intermittently in past years, providing data one year, not responding for one or more subsequent years, and then providing data again. For the years in which no response was received, data have been imputed as previously described. Although the imputation algorithm accurately reflects national trends, it cannot account for reporting anomalies at individual institutions. For this reason a separate backcasting of prior years' data was performed, following current-year imputation.

For each institution formerly imputed key variables for items 1 to 3 were compared with subsequent submissions to determine whether the imputed data accurately represent the growth patterns

shown by reported data. Re-estimation was applied when the imputed data were not consistent with reported data. If data were reported for fiscal years 1989 and 1992 but not for the intervening years, for example, the difference between the reported figures for each item total was calculated and evenly distributed across the intervening years (1990-91). The new figures were spread across disciplines (items 2 and 3) or sources of support (item 1) on the basis of the most recent reporting pattern. A clean facsimile was generated for each of the institutions undergoing these procedures and returned to the school for comment. These procedures resulted in much more consistent reporting trends for individual institutions but had little effect upon aggregate figures reflecting national totals.

Data Anomalies

Aggregate academic expenditure trend data are generally consistent from year to year, although data for individual institutions may vary considerably. Data anomalies may reflect true increases or decreases in expenditures or may be the result of changes in reporting methodology.

Sampling, Weighting, and Standard Errors of the Estimates

Since FY 1988, the year of the last full population survey, the NSF has performed surveys on a constant sample of 461 academic institutions and 19 FFRDCs. During the FY 1989 survey cycle, the survey design separated universities and colleges from FFRDCs, keeping the FFRDCs outside of the sampling frame. This survey design was continued in the FY 1990, FY 1991, and FY 1992 cycles. In turn, universities and colleges have been divided into the following four sampling strata (three certainty strata and one probability stratum):

(1) ***A certainty stratum of doctorate-granting institutions.*** This stratum contains 301 universities and colleges that grant doctoral degrees in S&E fields. Excluded from this stratum are all doctorate-granting HBCUs and university-system campuses.

(2) ***A certainty stratum of HBCUs.*** This stratum includes all 68 HBCUs (including those that are doctorate-granting institutions or university-system campuses).

(3) ***A certainty stratum of university-system campuses.*** This stratum includes 41 "university-system campuses"; each sample entry is the aggregation of all campuses that make up a university system. Note that no HBCUs are included in this stratum even if they are university-system campuses.

(4) ***A probability stratum of institutions that grant degrees at the master's level or below.*** This stratum includes 49 master's or bachelor's degree-granting institutions and institutions that offer no S&E degrees at any degree level, out of a survey stratum universe of 182. Note that none of the universities or colleges included in this stratum is either an HBCU or a university-system campus. This stratum had a sampling ratio of 0.27.

The data in this report are weighted to represent national-level R&D expenditures for universities and colleges (as mentioned previously under National Total and Imputation). The sample data, after imputation and estimation, were inflated to produce universe estimates by weighting the individual questionnaire data values by the inverse of the sampling ratio. Thus, in aggregating data for institutions from the probability stratum for tabulation purposes, each datum value was weighted by the inverse of the sampling ratio.

Estimates derived for institutions in the probability stratum were based on a sample, and the relative standard error (coefficient of variation) of an estimate was then obtained by dividing the standard error by the estimate itself, expressed as a percentage of the estimate.

The standard errors and coefficients of variation for each major S&E field are shown in table A-5. For example, for total academic R&D expenditures of $18.9 billion, the standard error of the estimate is $72.6 million at the 95-percent confidence level, with a coefficient of variation of ±0.4 percent. Similarly, for the estimate of $11.1 billion in federally financed expenditures, the 95-percent confidence limits are ±$35.8 million, with a coefficient of variation of ±0.3 percent.

Highest-Degree-Granted Tables

Several longitudinal tables display data for institutions whose highest S&E degree granted is at the doctoral level. In previous publications it would have been difficult to identify whether changes in yearly R&D expenditures were caused by changes in expenditure levels or in the number of doctorate-granting institutions. In order to maintain a consistent group of institutions across all years, the highest-degree-granted status for each institution is now based on the highest degree granted in the most recent year, FY 1992.

Data Availability and Distribution

Data published in this report are also available in machine-readable form on magnetic tapes. A multiyear data tape is available that contains data for FY 1972 through FY 1992; single-year tapes may also be purchased for any of these years. Information on survey content, tape formats, and years available, with prices and instructions for ordering, are contained in the current *Guide to the National Science Foundation's Surveys of Academic Science and Engineering* and may be obtained by contacting Ms. Marge Machen at—

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Selected data items for individual doctorate-granting, master's-granting, and historically black institutions are available on computer-generated Institutional Profiles, which consist of data not only from this survey, but also from NSF's other two academic S&E surveys: Federal Support to Universities, Colleges, and Nonprofit Institutions (Federal Support Survey) and Graduate Students and Postdoctorates in Science and Engineering (Graduate Student Survey). Since the R&D Expenditures Survey is a sample data collection effort, not all master's-granting institutions have a profile.

Institutional Profiles for any institution or limited group of institutions may be ordered by contacting Mr. Richard Bennof at—

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Division of Science Resources Studies
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The CASPAR (Computer-Aided Science Policy Analysis and Research) database system is an easy-to-use tool for retrieval and analysis of statistical data on academic S&E resources. CASPAR provides the analyst with an extensive and growing data library with multiyear statistics on the state of higher education in general and on S&E resources specifically. This data library is based on a set of standardized institutional and field of science definitions across the multiple sources used to develop the database. The CASPAR program includes built-in help capabilities to facilitate the use and interpretation of the data.

CASPAR data are drawn from a number of sources. All data are available for individual institutions, by State, and at the national level. Longitudinal data from surveys of universities and colleges conducted by the NSF Division of Science Resources Studies include this R&D Expenditures Survey, the Federal Support Survey, and the Graduate Student Survey. Data from surveys of universities and colleges conducted by the National Center for Education Statistics include Earned Degrees, Opening Fall Enrollment, Faculty Salaries, Tenure, and Fringe Benefits, and Financial Statistics. Data from other sources include the National Research Council Doctorate Program Ratings.

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SECTION A. TABLES

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Table A-1a. Response rates for the Academic Science and Engineering R&D Expenditures Survey at all institutions, by type of institution: FY 1992

Highest degree granted	Number in survey universe	Number in sample population	Number of complete responses	Number of partial responses	Total number of responses	Response rate
Grand total	613	480	329	146	475	99.0%
Universities and colleges total	594	461	310	146	456	98.9
Doctorate	330	330	226	101	327	99.1
Master's	176	77	46	30	76	98.7
Bachelor's and no S&E degree	88	54	38	15	53	98.1
FFRDCs total	19	19	19	0	19	100.0

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table A-1b. Response rates for the Academic Science and Engineering R&D Expenditures Survey at universities and colleges, by sampling strata and highest degree granted: FY 1992

Sampling stratum	Number in survey universe	Number in sample population	Number of complete responses	Number of partial responses	Total number of responses	Response rate
Grand total	594	461	310	146	456	98.9%
#1 Doctoral stratum[1]	303	303	207	93	300	99.0
#2 HBCU stratum	68	68	42	24	66	97.1
Doctoral	8	8	4	4	8	100.0
Master's	19	19	8	10	18	94.7
Bachelor's and no S&E degree	41	41	30	10	40	97.6
#3 University systems stratum	41	41	32	9	41	100.0
Doctoral	19	19	15	4	19	100.0
Master's	21	21	16	5	21	100.0
Bachelor's and no S&E degree	1	1	1	0	1	100.0
#4 Master's or below stratum[2]	182	49	29	20	49	100.0
Master's	136	37	22	15	37	100.0
Bachelor's and no S&E degree	46	12	7	5	12	100.0

[1] Doctoral stratum does not include doctorate-granting institutions that are recorded in either the HBCU or the university system stratum.

[2] Master's or below stratum does not include master's-granting institutions or bachelor's and no S&E degree granting institutions that are recorded in either the HBCU or the university systems stratum.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table A-2. Imputed and/or estimated amount for the Academic Science and Engineering R&D Expenditures Survey at universities and colleges, by type of institution: FY 1992

Highest degree granted	National estimate of separately budgeted R&D expenditures	Amount inflated due to weighting	Inflated amount imputed and/or estimated	Imputed and/or estimated as percent of total
	[Dollars in millions]			
Total	18,880	172	53	0.3
Doctorate-granting institutions	18,505	0	46	0.2
Non-doctorate-granting institutions	375	172	7	2.0

NOTE: Because of rounding, components may not add to totals. Percentages are calculated from unrounded figures.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table A-3a. Imputed and/or estimated amount for the Academic Science and Engineering R&D Expenditures Survey at universities and colleges, by science and engineering field: FY 1992

Science and engineering field	National estimate of separately budgeted R&D expenditures	Amount inflated due to weighting	Inflated amount imputed and/or estimated	Imputed and/or estimated as percent of total
	[Dollars in millions]			
Total	18,880	172	53	0.3
Engineering	3,082	44	11	0.4
Physical sciences	2,058	28	11	0.5
Environmental sciences	1,249	26	22	1.7
Mathematical sciences	247	5	1	0.4
Computer sciences	556	6	3	0.6
Life sciences	10,228	34	101	1.0
Psychology	336	13	7	2.0
Social sciences	817	12	6	0.7
Other sciences	307	4	4	1.2

NOTE: Because of rounding, components may not add to totals. Percentages are calculated from unrounded figures.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table A-3b. Imputed and/or estimated amount of federally financed academic science and engineering R&D expenditures at universities and colleges, by science and engineering field: FY 1992

Science and engineering field	National estimate of federally financed R&D expenditures	Amount inflated due to weighting	Inflated amount imputed and/or estimated	Imputed and/or estimated as percent of total
	[Dollars in millions]			
Total	11,087	76	30	0.3
Engineering	1,755	14	5	0.3
Physical sciences	1,476	16	3	0.2
Environmental sciences	799	13	17	2.1
Mathematical sciences	183	3	1	0.4
Computer sciences	377	2	1	0.3
Life sciences	5,893	15	55	0.9
Psychology	222	11	5	2.5
Social sciences	278	2	3	1.0
Other sciences	104	1	1	1.0

NOTE: Because of rounding, components may not add to totals. Percentages are calculated from unrounded figures.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering xpenditures at Universities and Colleges

Table A-4. Imputed and/or estimated amount for the Academic Science and Engineering R&D Expenditures Survey at universities and colleges, by source of funds: FY 1992

Source of funds	National estimate of separately budgeted R&D expenditures	Amount inflated due to weighting	Inflated amount imputed and/or estimated	Imputed and/or estimated as percent of total
	[Dollars in millions]			
Total	18,880	172	53	0.3
Federal Government	11,087	76	30	0.3
State and local government	1,506	24	6	0.4
Industry	1,302	29	21	1.7
Institutional funds	3,576	29	36	1.0
All other sources	1,409	13	4	0.3

NOTE: Because of rounding, components may not add to totals. Percentages are calculated from unrounded figures.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table A-5. Standard errors of the estimates (SE) and coefficients of variation (CV) for the Academic Science and Engineering R&D Expenditures Survey at all institutions, by science and engineering field: FY 1992

[SE in thousands of dollars; CV in percent]

Science and engineering field	Separately budgeted R&D expenditures		Federally financed R&D expeditures	
	1.96 SE	1.96 CV	1.96 SE	1.96 CV
Total	72,600	0.4	35,842	0.3
Engineering	35,830	1.2	10,941	0.6
Physical sciences	8,268	0.4	5,849	0.4
Environmental sciences	21,413	1.7	12,096	1.5
Mathematical sciences	2,110	0.9	1,682	0.9
Computer sciences	2,697	0.5	1,088	0.3
Life sciences	11,094	0.1	5,224	0.1
Psychology	8,809	2.6	8,682	3.9
Social sciences	6,691	0.8	1,578	0.6
Other sciences	2,427	0.8	838	0.8

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

SECTION B.

DETAILED STATISTICAL TABLES

Note

To obtain accurate historical data, use only the latest detailed statistical tables for fiscal year (FY) 1992 and not data published earlier. Institutions revise prior-years' data when important changes occur in reporting practices and program classifications, and only the latest tables incorporate such changes.

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UNIVERSITIES AND COLLEGES

R&D Expenditures

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Table B-1. R&D expenditures at universities and colleges, by source of funds: fiscal years 1953-92

[Dollars in millions]

Fiscal year	Total	Source of funds				
		Federal Government	State and local governments	Industry	Institutional funds	All other sources
1953	255	138	37	19	35	26
1954	290	160	42	22	38	28
1955	312	169	47	25	41	30
1956	372	213	53	29	43	34
1957	410	229	60	34	49	38
1958	456	254	68	39	53	42
1959	526	306	76	39	58	47
1960	646	405	85	40	64	52
1961	763	500	95	40	70	58
1962	904	613	106	40	79	66
1963	1,081	760	118	41	89	73
1964	1,275	917	132	40	103	83
1965	1,474	1,073	143	41	124	93
1966	1,715	1,261	156	42	148	108
1967	1,921	1,409	164	48	181	119
1968	2,149	1,572	172	55	218	132
1969	2,225	1,600	197	60	223	145
1970	2,335	1,647	219	61	243	165
1971	2,500	1,724	255	70	274	177
1972	2,630	1,795	269	74	305	187
1973	2,884	1,985	295	84	318	202
1974	3,022	2,032	308	95	368	219
1975	3,409	2,288	332	113	417	259
1976	3,729	2,512	364	123	446	285
1977	4,067	2,726	374	139	514	314
1978 1/	4,625	3,059	414	170	623	359
1979	5,366	3,598	472	193	735	368
1980	6,063	4,098	491	236	835	403
1981	6,847	4,571	546	292	1,004	435
1982	7,323	4,768	616	337	1,111	491
1983	7,881	4,989	626	389	1,302	576
1984	8,620	5,430	690	475	1,411	614
1985	9,666	6,063	752	560	1,617	694
1986	10,927	6,710	915	700	1,869	733
1987	12,152	7,342	1,023	790	2,169	828
1988	13,463	8,192	1,106	872	2,357	936
1989	15,019	8,997	1,234	998	2,714	1,076
1990	16,334	9,637	1,339	1,130	3,033	1,195
1991	17,636	10,226	1,484	1,210	3,404	1,313
1992	18,880	11,087	1,506	1,302	3,576	1,409

1/ Fiscal year 1978 data are estimated based on data collected from doctorate-granting institutions only.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-2. R&D expenditures at universities and colleges, by character of work: fiscal years 1953-92

[Dollars in millions]

Fiscal year	Total	Character of work			
		Basic research		Applied research and development	
		Amount	Percent of total	Amount	Percent of total
1953	255	110	43.1	145	56.9
1954	290	136	46.9	154	53.1
1955	312	159	51.0	153	49.0
1956	372	200	53.8	172	46.2
1957	410	240	58.5	170	41.5
1958	456	281	61.6	175	38.4
1959	526	343	65.2	183	34.8
1960	646	433	67.0	213	33.0
1961	763	536	70.2	227	29.8
1962	904	659	72.9	245	27.1
1963	1,081	814	75.3	267	24.7
1964	1,275	1,003	78.7	272	21.3
1965	1,474	1,138	77.2	336	22.8
1966	1,715	1,303	76.0	412	24.0
1967	1,921	1,457	75.8	464	24.2
1968	2,149	1,650	76.8	499	23.2
1969	2,225	1,711	76.9	514	23.1
1970	2,335	1,796	76.9	539	23.1
1971	2,500	1,914	76.6	586	23.4
1972	2,630	2,022	76.9	608	23.1
1973	2,884	2,053	71.2	831	28.8
1974	3,022	2,153	71.2	869	28.8
1975	3,409	2,410	70.7	999	29.3
1976	3,729	2,549	68.4	1,180	31.6
1977	4,067	2,800	68.8	1,267	31.2
1978 1/	4,625	--	--	--	--
1979	5,366	3,619	67.4	1,747	32.6
1980	6,063	4,036	66.6	2,026	33.4
1981	6,847	4,593	67.1	2,253	32.9
1982	7,323	4,878	66.6	2,445	33.4
1983	7,881	5,303	67.3	2,578	32.7
1984	8,620	5,732	66.5	2,888	33.5
1985	9,686	6,555	67.7	3,131	32.3
1986	10,927	7,491	68.6	3,436	31.4
1987	12,152	8,391	69.1	3,761	30.9
1988	13,463	8,892	66.0	4,571	34.0
1989	15,019	9,802	65.3	5,217	34.7
1990	16,334	10,680	65.4	5,654	34.6
1991	17,636	11,562	65.6	6,075	34.4
1992	18,880	12,468	66.0	6,412	34.0

1/ Separate data for basic research and applied research and development were not collected for fiscal year 1978.

NOTE: R&D expenditures by character of work are based on estimates of basic research provided by universities and colleges.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-3. R&D expenditures at universities and colleges, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	9,686,420	10,926,948	12,151,935	13,462,796	15,019,003	16,334,400	17,637,627	18,879,705
Source of funds:								
Federal Government	6,063,176	6,710,320	7,341,570	8,191,521	8,996,808	9,637,485	10,226,104	11,087,032
State and local governments	752,146	915,135	1,023,430	1,106,428	1,234,140	1,338,598	1,484,443	1,505,515
Industry	560,027	699,759	790,161	871,960	998,431	1,130,397	1,209,909	1,302,018
Institutional funds	1,617,054	1,869,009	2,168,527	2,356,682	2,713,905	3,032,736	3,404,366	3,576,407
All other sources	694,017	732,725	828,247	936,205	1,075,719	1,195,185	1,312,806	1,408,732
Field:								
Engineering, total	1,417,876	1,640,734	1,891,744	2,096,154	2,397,709	2,663,146	2,907,412	3,082,262
Aeronautical and astronautical	80,525	94,422	108,150	122,814	145,077	159,320	176,121	191,647
Chemical	116,210	132,260	148,362	162,559	194,080	218,612	243,980	262,195
Civil	153,156	177,984	190,680	224,986	246,212	284,900	316,879	340,636
Electrical	337,403	394,869	450,836	509,143	600,013	667,491	683,014	711,746
Mechanical	207,751	227,987	274,873	303,469	343,781	392,251	422,613	456,124
Metallurgical and materials 1/	--	--	--	--	--	273,671	306,256	294,297
Other, n.e.c.	522,831	613,212	718,843	773,203	868,566	666,901	758,570	825,618
All sciences, total	8,268,544	9,286,214	10,260,191	11,366,642	12,621,294	13,671,254	14,730,215	15,797,443
Physical sciences	1,148,141	1,286,424	1,397,878	1,553,736	1,648,912	1,809,339	1,945,057	2,057,842
Astronomy	96,083	101,795	108,429	128,784	136,590	169,594	208,947	231,945
Chemistry	421,212	469,385	513,145	564,841	609,534	650,926	670,963	701,216
Physics	551,053	630,586	673,461	739,661	784,509	841,805	871,832	915,347
Other, n.e.c.	79,793	84,658	102,843	122,470	118,278	147,014	193,315	209,335
Environmental sciences	705,279	775,948	838,860	893,866	1,014,205	1,079,930	1,129,861	1,248,800
Atmospheric	107,534	119,948	131,649	137,553	170,248	178,066	180,151	193,887
Earth sciences	253,797	274,390	283,898	294,204	322,356	355,453	384,833	414,270
Oceanography	257,973	279,992	299,949	333,282	365,382	383,942	396,788	437,406
Other, n.e.c.	85,975	101,618	123,364	128,847	156,220	162,469	168,089	203,236
Mathematical sciences	127,730	151,561	177,246	198,848	214,000	221,026	230,178	247,092
Computer sciences	280,756	321,316	372,411	408,509	472,190	513,838	553,593	555,572
Life sciences	5,278,815	5,890,275	6,528,085	7,257,011	8,081,805	8,748,152	9,495,977	10,227,816
Agricultural sciences	999,299	1,089,380	1,120,746	1,176,379	1,286,046	1,352,186	1,460,734	1,511,943
Biological sciences	1,780,387	1,945,542	2,143,136	2,396,627	2,640,787	2,856,816	3,055,107	3,318,933
Medical sciences	2,318,369	2,615,676	3,000,424	3,377,752	3,827,561	4,168,510	4,569,715	4,967,360
Other, n.e.c.	180,760	239,677	263,779	304,253	327,410	370,640	410,422	429,580
Psychology	158,176	170,200	187,285	212,971	236,791	258,076	290,745	336,107
Social sciences	383,320	462,456	502,254	552,212	636,933	706,309	755,146	817,209
Economics	116,060	135,712	149,375	163,009	183,076	201,763	211,007	224,660
Political science	59,379	68,679	80,987	86,660	103,361	115,595	125,173	143,642
Sociology	75,489	96,877	96,668	109,491	121,798	134,096	157,957	165,631
Other, n.e.c.	130,392	161,188	175,224	193,052	223,678	254,854	261,008	283,275
Other sciences, n.e.c.	186,327	228,034	256,172	289,469	316,459	334,586	329,659	307,006

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-4. Federally financed R&D expenditures at universities and colleges, by science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Field	1985	1986	1987	1988	1989	1990	1991	1992
Total	6,083,176	6,710,320	7,341,570	8,191,521	8,996,808	9,637,485	10,226,104	11,087,032
Engineering, total	867,105	977,562	1,112,647	1,229,742	1,383,131	1,524,205	1,634,901	1,754,667
Aeronautical and astronautical	61,519	72,671	80,168	93,681	111,737	122,968	133,483	146,129
Chemical	64,619	73,284	76,652	85,506	101,187	110,630	117,802	126,462
Civil	78,834	88,360	89,699	103,135	101,664	115,939	122,751	143,982
Electrical	228,549	260,340	292,216	330,387	389,775	435,126	438,440	455,172
Mechanical	134,131	148,001	178,483	192,612	213,854	236,723	252,044	272,173
Metallurgical and materials 1/	--	--	--	--	--	139,204	154,088	142,457
Other, n.e.c.	299,453	334,906	395,429	424,421	464,913	361,616	416,493	468,293
All sciences, total	5,196,071	5,732,758	6,228,923	6,961,779	7,613,677	8,113,280	8,591,203	9,332,366
Physical sciences	889,820	982,058	1,051,029	1,157,449	1,197,148	1,313,785	1,382,611	1,476,443
Astronomy	64,393	69,686	71,189	83,744	87,438	112,157	134,204	152,651
Chemistry	312,615	338,112	367,823	402,674	422,609	444,899	447,306	476,266
Physics	452,937	510,114	534,797	579,590	605,146	651,363	667,930	701,423
Other, n.e.c.	59,875	64,146	77,220	91,441	81,955	105,365	133,172	146,104
Environmental sciences	473,990	516,762	545,662	589,113	660,752	690,832	707,844	799,184
Atmospheric	85,872	97,469	108,047	111,803	133,825	135,943	134,604	146,762
Earth sciences	154,071	160,108	159,523	174,522	186,079	204,420	216,460	236,012
Oceanography	187,666	208,063	217,702	236,508	265,942	267,633	267,810	310,864
Other, n.e.c.	46,371	51,122	60,390	64,280	74,906	82,836	88,970	105,545
Mathematical sciences	96,979	114,359	131,952	149,959	156,459	159,580	170,084	182,725
Computer sciences	195,665	232,604	257,263	289,129	322,480	340,053	369,082	377,434
Life sciences	3,188,063	3,492,655	3,835,833	4,325,594	4,782,507	5,077,083	5,407,076	5,892,771
Agricultural sciences	294,083	292,465	297,676	322,571	348,563	351,888	375,403	413,437
Biological sciences	1,206,901	1,311,089	1,418,657	1,602,813	1,734,863	1,841,903	1,944,089	2,139,584
Medical sciences	1,576,544	1,742,129	1,961,800	2,212,997	2,501,033	2,665,223	2,842,512	3,088,901
Other, n.e.c.	108,535	146,972	157,700	187,213	198,049	218,069	245,072	250,849
Psychology	105,904	114,001	123,830	140,358	155,802	168,320	192,059	221,641
Social sciences	153,806	172,867	188,697	188,988	211,776	225,720	251,528	278,430
Economics	43,711	45,448	43,425	49,171	54,217	54,198	59,651	66,126
Political science	19,669	20,172	24,035	25,163	25,572	25,143	28,287	35,813
Sociology	40,480	49,760	44,817	48,430	53,729	59,637	72,060	82,377
Other, n.e.c.	49,946	57,487	56,420	66,224	78,257	86,741	91,529	94,114
Other sciences, n.e.c.	91,854	107,452	114,657	121,189	126,752	137,908	110,939	103,738

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-5. Non-Federal R&D expenditures at universities and colleges, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	3,623,244	4,216,628	4,810,365	5,271,275	6,022,196	6,696,916	7,411,523	7,792,672
Source of funds:								
State and local governments	752,146	915,135	1,023,430	1,106,428	1,234,140	1,338,598	1,484,443	1,505,515
Industry	560,027	699,759	790,161	871,960	998,431	1,130,397	1,209,909	1,302,018
Institutional funds	1,617,054	1,869,009	2,168,527	2,356,682	2,713,905	3,032,736	3,404,366	3,576,407
All other sources	694,017	732,725	828,247	936,205	1,075,719	1,195,185	1,312,806	1,408,732
Field:								
Engineering, total	550,771	663,172	779,097	866,412	1,014,578	1,138,941	1,272,511	1,327,595
Aeronautical and astronautical	19,006	21,751	27,982	29,133	33,340	36,352	42,639	45,518
Chemical	51,591	58,976	71,710	77,053	92,873	107,982	126,358	135,733
Civil	74,322	89,624	100,981	121,831	144,548	168,961	194,127	196,654
Electrical	108,854	134,529	158,620	178,756	210,237	232,365	244,574	256,574
Mechanical	73,620	79,986	96,390	110,857	129,926	153,529	170,569	183,952
Metallurgical and materials 1/	--	--	--	--	--	134,467	152,167	151,839
Other, n.e.c.	223,378	278,306	323,414	348,782	403,653	305,286	342,077	357,325
All sciences, total	3,072,473	3,553,456	4,031,268	4,404,863	5,007,617	5,557,974	6,139,012	6,465,078
Physical sciences	258,321	304,366	346,849	396,287	451,763	495,554	562,446	581,399
Astronomy	31,690	32,109	37,240	43,020	49,152	57,437	74,743	79,294
Chemistry	108,597	131,273	145,322	162,167	186,925	208,027	223,657	224,950
Physics	98,116	120,472	138,664	160,071	179,363	190,441	203,902	213,924
Other, n.e.c.	19,918	20,512	25,623	31,029	36,323	41,649	60,143	63,231
Environmental sciences	231,299	259,186	293,198	304,773	353,453	389,098	422,017	449,616
Atmospheric	21,662	22,479	23,602	25,750	36,421	42,123	45,548	47,126
Earth sciences	99,726	114,282	124,375	119,682	136,277	151,034	168,373	178,258
Oceanography	70,307	71,929	82,247	94,774	99,440	116,309	128,977	126,542
Other, n.e.c.	39,604	50,496	62,974	64,567	81,314	79,632	79,119	97,690
Mathematical sciences	30,751	37,202	45,294	48,889	57,541	61,445	60,115	64,367
Computer sciences	85,091	88,712	115,148	119,380	149,710	173,785	184,511	178,138
Life sciences	2,090,752	2,397,620	2,692,252	2,931,417	3,299,298	3,671,069	4,088,901	4,335,045
Agricultural sciences	705,216	796,915	823,070	853,808	937,484	1,000,298	1,085,331	1,098,507
Biological sciences	571,486	634,453	724,479	795,814	905,924	1,014,913	1,111,018	1,179,349
Medical sciences	741,825	873,547	1,038,624	1,164,755	1,326,529	1,503,287	1,727,203	1,878,479
Other, n.e.c.	72,225	92,705	106,079	117,040	129,361	152,572	165,350	178,711
Psychology	52,272	56,199	63,455	72,613	80,989	89,755	98,685	114,466
Social sciences	229,514	289,589	333,557	383,224	425,157	480,589	503,618	538,779
Economics	74,349	90,264	105,950	113,838	133,859	147,585	151,357	158,535
Political science	39,710	48,507	56,952	61,497	77,808	90,452	96,886	107,829
Sociology	35,009	47,117	51,851	61,061	68,068	74,459	85,896	83,254
Other, n.e.c.	80,446	103,701	118,804	126,828	145,421	168,113	169,479	189,161
Other sciences, n.e.c.	94,473	120,582	141,515	168,280	189,707	196,678	218,720	203,268

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-6. R&D expenditures at doctorate-granting institutions, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	9,547,107	10,773,115	11,989,574	13,279,537	14,757,061	16,048,230	17,326,346	18,504,707
Source of funds:								
Federal Government	5,973,212	6,611,548	7,239,800	8,075,545	8,840,244	9,468,328	10,045,329	10,875,392
State and local governments	736,306	900,213	1,006,365	1,089,489	1,202,264	1,299,259	1,449,347	1,464,412
Industry	550,054	687,729	776,012	857,246	977,449	1,108,995	1,185,191	1,258,036
Institutional funds	1,599,895	1,850,465	2,149,584	2,333,150	2,679,689	2,993,973	3,354,844	3,522,476
All other sources	685,640	723,160	817,813	924,107	1,057,415	1,177,675	1,291,635	1,384,391
Field:								
Engineering, total	1,400,236	1,619,653	1,868,738	2,067,156	2,359,735	2,618,605	2,861,012	3,005,261
Aeronautical and astronautical	78,259	91,657	104,920	118,824	142,634	157,570	173,353	188,942
Chemical	115,142	131,046	147,024	160,227	191,520	216,295	242,085	259,844
Civil	150,728	175,096	187,478	220,913	240,941	279,240	308,285	332,194
Electrical	333,497	390,240	445,887	502,781	586,518	656,305	671,269	690,989
Mechanical	204,483	223,837	270,144	298,455	337,059	383,344	411,984	436,943
Metallurgical and materials 1/	--	--	--	--	--	272,943	305,307	292,204
Other, n.e.c.	518,127	607,777	713,285	766,156	859,063	652,908	748,769	802,145
All sciences, total	8,146,871	9,153,462	10,120,836	11,212,381	12,397,326	13,429,625	14,465,334	15,499,446
Physical sciences	1,119,221	1,254,306	1,383,990	1,518,316	1,603,359	1,757,079	1,883,360	1,989,131
Astronomy	95,478	101,191	107,840	126,037	136,552	169,539	208,718	231,542
Chemistry	405,771	452,250	495,720	545,819	583,373	621,874	636,817	663,474
Physics	538,957	617,964	659,330	725,372	767,544	820,067	846,221	885,995
Other, n.e.c.	79,015	82,901	101,100	121,088	115,890	145,599	191,604	208,120
Environmental sciences	689,227	759,244	821,185	877,799	984,086	1,045,755	1,093,337	1,204,787
Atmospheric	105,129	117,481	128,685	134,176	160,941	168,854	169,884	184,927
Earth sciences	249,078	269,300	278,080	289,095	318,254	347,468	375,751	402,034
Oceanography	254,246	276,293	296,114	329,968	353,633	371,874	383,888	420,344
Other, n.e.c.	80,774	96,170	118,306	124,560	151,258	157,559	163,814	197,482
Mathematical sciences	123,955	147,509	173,836	195,025	209,395	215,919	221,800	237,332
Computer sciences	275,913	315,454	364,962	400,493	464,926	506,045	544,910	544,132
Life sciences	5,232,111	5,838,466	6,475,343	7,189,324	7,979,561	8,645,931	9,399,151	10,119,382
Agricultural sciences	978,789	1,067,264	1,099,066	1,150,847	1,245,897	1,311,767	1,417,572	1,465,537
Biological sciences	1,758,112	1,921,189	2,117,405	2,383,329	2,586,577	2,800,921	3,008,721	3,265,020
Medical sciences	2,316,398	2,612,678	2,996,999	3,373,787	3,821,701	4,165,140	4,564,957	4,962,090
Other, n.e.c.	178,812	237,335	261,873	301,361	325,386	368,103	407,901	426,715
Psychology	153,131	164,769	181,039	205,654	224,819	242,371	271,800	315,495
Social sciences	369,794	448,895	488,364	539,133	618,492	668,182	729,605	791,760
Economics	116,145	133,504	147,486	160,790	184,580	198,004	203,762	217,028
Political science	58,008	67,266	79,564	85,027	102,123	114,127	124,002	142,080
Sociology	71,015	92,999	92,498	108,553	116,410	126,783	150,963	159,545
Other, n.e.c.	124,626	155,136	168,818	186,763	215,399	247,268	250,876	273,129
Other sciences, n.e.c.	183,519	224,819	252,137	286,637	312,668	328,343	321,371	297,447

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-7. Federally financed R&D expenditures at doctorate-granting institutions, by science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Field	1985	1986	1987	1988	1989	1990	1991	1992
Total	5,973,212	6,611,548	7,239,800	8,075,545	8,840,244	9,468,328	10,045,329	10,875,392
Engineering, total	857,245	965,640	1,100,212	1,214,384	1,364,022	1,502,870	1,612,701	1,724,884
Aeronautical and astronautical	59,489	70,173	77,243	89,901	109,728	121,515	131,320	144,028
Chemical	63,784	72,339	75,806	83,953	99,328	109,254	116,547	125,500
Civil	77,413	86,761	87,967	100,890	100,341	114,773	120,983	142,561
Electrical	228,705	258,285	290,212	327,912	363,100	427,980	431,142	442,205
Mechanical	132,237	145,363	175,565	189,584	210,434	233,392	246,247	262,724
Metallurgical and materials 1/	--	--	--	--	--	138,735	153,597	141,805
Other, n.e.c.	297,617	332,719	393,419	422,164	461,091	357,221	413,865	466,063
All sciences, total	5,115,967	5,645,908	6,139,588	6,861,161	7,476,222	7,965,458	8,432,628	9,150,508
Physical sciences	868,759	959,386	1,026,897	1,132,467	1,168,449	1,279,998	1,342,482	1,430,122
Astronomy	63,919	69,291	70,796	83,225	87,420	112,121	134,010	152,254
Chemistry	301,996	326,371	356,161	389,428	405,928	426,784	426,244	451,478
Physics	443,242	500,053	523,409	568,964	592,328	638,349	649,804	681,092
Other, n.e.c.	59,612	63,671	76,529	90,850	80,773	104,734	132,404	145,298
Environmental sciences	484,225	508,670	535,279	578,895	638,143	668,232	686,717	776,636
Atmospheric	83,625	95,184	105,218	108,644	125,167	127,728	125,925	138,709
Earth sciences	151,968	157,804	158,555	171,971	183,993	201,086	213,398	232,614
Oceanography	185,946	208,472	216,211	238,627	258,784	258,772	260,182	302,932
Other, n.e.c.	42,686	47,230	57,295	61,653	72,199	80,666	88,284	102,380
Mathematical sciences	94,226	111,503	129,594	147,365	153,830	157,088	165,202	176,307
Computer sciences	192,734	228,855	252,617	283,758	318,857	338,642	364,516	371,606
Life sciences	3,155,240	3,456,472	3,800,832	4,280,498	4,720,514	5,012,459	5,346,100	5,820,393
Agricultural sciences	278,308	275,613	282,236	302,916	322,486	325,228	347,376	381,534
Biological sciences	1,194,867	1,295,851	1,402,704	1,582,015	1,704,308	1,807,643	1,914,995	2,103,712
Medical sciences	1,575,057	1,739,955	1,969,434	2,210,467	2,496,476	2,683,338	2,840,006	3,095,409
Other, n.e.c.	108,998	145,053	156,458	185,100	197,242	216,250	243,754	249,738
Psychology	102,377	110,127	119,285	135,088	148,664	155,907	178,522	204,772
Social sciences	148,252	167,417	163,178	183,281	208,358	219,545	243,364	270,574
Economics	42,797	44,481	42,691	48,127	53,381	53,092	58,496	62,750
Political science	19,148	19,802	23,422	24,516	25,362	24,913	28,021	35,686
Sociology	38,320	47,895	42,552	47,057	52,508	58,029	69,547	79,895
Other, n.e.c.	47,987	55,449	54,513	63,581	75,109	83,512	89,291	92,284
Other sciences, n.e.c.	90,154	105,478	111,908	119,829	125,407	135,617	108,755	100,099

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-8. Non-Federal R&D expenditures at doctorate-granting institutions, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	3,573,895	4,161,567	4,749,774	5,203,992	5,916,817	6,579,902	7,281,017	7,829,315
Source of funds:								
State and local governments	738,306	900,213	1,006,365	1,089,489	1,202,264	1,299,259	1,449,347	1,464,412
Industry	550,054	687,729	776,012	857,246	977,449	1,108,995	1,185,191	1,258,036
Institutional funds	1,599,895	1,850,465	2,149,584	2,333,150	2,679,689	2,993,973	3,354,844	3,522,476
All other sources	685,640	723,160	817,813	924,107	1,057,415	1,177,675	1,291,635	1,384,391
Field:								
Engineering, total	542,991	654,013	768,526	852,772	995,713	1,115,735	1,248,311	1,280,377
Aeronautical and astronautical	18,770	21,484	27,677	28,723	32,906	36,055	42,033	44,916
Chemical	51,358	58,707	71,218	76,274	92,192	107,041	125,518	134,344
Civil	73,315	88,335	99,511	120,023	140,600	164,467	187,302	189,633
Electrical	106,792	131,955	155,675	174,869	205,418	228,325	240,127	248,784
Mechanical	72,246	78,474	94,579	108,891	126,625	149,952	166,717	176,219
Metallurgical and materials 1/	--	--	--	--	--	134,208	151,710	150,399
Other, n.e.c.	220,510	275,058	319,866	343,992	397,972	295,687	334,904	336,082
All sciences, total	3,030,904	3,507,554	3,981,248	4,351,220	4,921,104	5,464,167	6,032,706	6,548,938
Physical sciences	250,462	294,920	337,093	385,849	436,910	477,111	540,898	559,009
Astronomy	31,559	31,900	37,042	42,812	49,132	57,418	74,708	79,288
Chemistry	103,785	125,879	139,559	156,391	177,445	195,110	210,573	211,996
Physics	95,715	117,911	135,921	156,408	175,216	183,718	196,417	204,903
Other, n.e.c.	19,403	19,230	24,571	30,238	35,117	40,865	59,200	62,822
Environmental sciences	225,002	252,574	285,886	298,904	345,943	377,523	407,620	428,152
Atmospheric	21,504	22,317	23,467	25,532	35,774	41,126	43,959	46,218
Earth sciences	97,110	111,496	121,505	117,124	134,261	146,402	162,385	169,420
Oceanography	68,300	69,921	79,903	93,341	96,849	113,102	123,726	117,412
Other, n.e.c.	38,088	48,940	61,011	62,907	79,059	76,893	77,550	95,102
Mathematical sciences	29,729	36,008	44,242	47,860	55,565	58,831	56,598	61,025
Computer sciences	83,179	86,599	112,345	116,735	146,089	169,403	180,394	172,526
Life sciences	2,076,871	2,381,994	2,674,511	2,908,826	3,259,047	3,633,472	4,053,051	4,298,969
Agricultural sciences	700,481	791,851	816,830	847,931	923,409	986,539	1,070,196	1,084,003
Biological sciences	563,225	625,338	714,701	781,314	882,269	993,278	1,093,756	1,161,308
Medical sciences	741,341	872,723	1,037,565	1,163,320	1,325,225	1,501,802	1,724,952	1,876,681
Other, n.e.c.	71,824	92,282	105,415	116,261	128,144	151,853	164,147	176,977
Psychology	50,754	54,642	61,754	70,566	78,155	86,464	95,278	110,723
Social sciences	221,542	281,478	325,186	355,872	412,134	468,637	486,251	521,186
Economics	73,348	89,023	104,795	112,663	131,179	144,912	147,267	154,276
Political science	38,860	47,684	58,142	60,511	76,761	89,214	95,981	108,396
Sociology	32,695	45,104	49,944	59,496	63,904	70,755	81,416	79,650
Other, n.e.c.	76,639	99,667	114,305	123,202	140,290	163,756	161,587	180,865
Other sciences, n.e.c.	93,365	119,341	140,231	166,808	187,281	192,726	212,616	197,348

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-9. R&D expenditures at public universities and colleges, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	6,285,044	7,110,791	7,900,839	8,770,578	9,857,300	10,813,713	11,801,306	12,634,376
Source of funds:								
Federal Government	3,489,801	3,839,844	4,179,664	4,713,088	5,205,570	5,626,743	6,052,934	6,598,442
State and local governments	683,915	831,559	926,493	995,732	1,108,694	1,203,577	1,341,435	1,367,433
Industry	342,533	439,944	494,293	546,511	636,588	737,556	794,616	857,491
Institutional funds	1,327,788	1,550,197	1,802,588	1,955,754	2,262,223	2,536,251	2,825,475	2,957,206
All other sources	441,007	449,247	497,801	559,493	644,226	709,586	786,846	853,805
Field:								
Engineering, total	852,185	1,005,090	1,167,805	1,335,181	1,558,898	1,772,415	1,968,452	2,060,942
Aeronautical and astronautical	37,985	44,475	52,807	66,807	78,667	90,811	104,775	115,157
Chemical	75,539	83,520	91,988	102,298	121,302	143,775	154,568	173,320
Civil	115,213	137,529	144,496	170,316	194,491	230,390	259,488	275,972
Electrical	181,258	218,121	250,796	298,926	364,427	408,488	422,951	436,040
Mechanical	113,949	128,706	157,125	184,112	207,250	245,771	266,123	280,536
Metallurgical and materials 1/	--	--	--	--	--	199,998	231,097	212,986
Other, n.e.c.	328,241	392,739	470,593	512,722	592,761	453,184	529,451	586,932
All sciences, total	5,432,859	6,105,701	6,733,034	7,435,397	8,298,401	9,041,298	9,832,855	10,573,434
Physical sciences	682,100	753,795	836,948	936,905	1,018,147	1,127,029	1,223,781	1,293,160
Astronomy	65,797	69,560	76,175	88,361	95,754	113,577	142,520	153,874
Chemistry	268,154	297,333	330,203	362,110	391,746	418,157	445,158	466,731
Physics	313,792	349,561	380,257	424,769	464,749	510,664	529,296	561,862
Other, n.e.c.	34,357	37,341	50,313	61,665	65,898	84,631	106,806	108,694
Environmental sciences	521,7[illegible]	583,835	636,073	668,581	747,767	819,848	858,424	971,286
Atmospheric	88,012	100,121	111,791	110,745	133,184	143,776	145,752	157,620
Earth sciences	183,925	202,247	207,549	212,209	231,153	260,655	285,057	310,988
Oceanography	194,124	213,067	233,683	262,149	279,517	307,105	315,158	355,125
Other, n.e.c.	55,672	68,400	83,050	83,478	103,913	108,314	112,458	147,533
Mathematical sciences	67,140	82,889	100,077	108,760	120,513	128,659	135,559	144,533
Computer sciences	122,009	139,303	167,067	170,421	209,112	248,695	291,986	283,327
Life sciences	3,509,736	3,907,870	4,290,102	4,768,355	5,330,213	5,747,658	6,296,381	6,812,758
Agricultural sciences	963,721	1,050,770	1,080,284	1,132,669	1,237,734	1,304,107	1,410,432	1,466,675
Biological sciences	1,126,280	1,228,745	1,330,471	1,491,229	1,649,261	1,784,473	1,940,199	2,093,462
Medical sciences	1,311,847	1,473,398	1,707,830	1,957,292	2,239,301	2,433,122	2,689,448	2,991,659
Other, n.e.c.	107,888	154,957	171,517	187,165	203,917	225,955	256,301	260,961
Psychology	106,943	113,866	123,547	140,583	159,468	175,427	203,501	233,986
Social sciences	280,833	339,990	363,742	403,478	460,427	529,972	571,884	602,920
Economics	91,896	106,896	114,249	119,630	138,278	151,534	162,966	177,604
Political science	41,107	45,868	50,104	52,467	61,427	76,242	80,441	81,048
Sociology	49,542	61,092	58,764	71,808	81,477	95,458	113,681	118,425
Other, n.e.c.	98,288	126,134	140,625	159,573	179,245	206,738	214,796	225,843
Other sciences, n.e.c.	142,365	184,153	215,478	238,314	252,754	264,010	251,358	231,504

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-10. Federally financed R&D expenditures at public universities and colleges, by science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Field	1985	1986	1987	1988	1989	1990	1991	1992
Total	3,489,801	3,839,844	4,179,664	4,713,088	5,205,570	5,626,743	6,052,934	6,598,442
Engineering, total	436,588	500,788	571,025	672,545	767,162	877,591	961,312	1,012,497
Aeronautical and astronautical	24,433	30,110	33,603	47,462	57,138	65,767	73,300	80,895
Chemical	40,958	42,953	42,710	49,408	55,394	64,897	67,834	76,125
Civil	54,273	62,842	58,724	68,515	71,053	83,922	89,656	103,728
Electrical	108,053	123,657	140,219	172,932	215,451	245,939	248,247	249,342
Mechanical	63,925	71,948	89,017	101,820	108,986	128,072	135,117	143,014
Metallurgical and materials 1/	--	--	--	--	--	93,635	107,534	91,005
Other, n.e.c.	146,948	169,280	206,752	232,408	259,139	195,361	239,625	268,389
All sciences, total	3,053,213	3,339,056	3,608,639	4,040,543	4,438,408	4,749,152	5,091,622	5,585,944
Physical sciences	468,830	523,848	567,846	629,804	667,696	740,031	781,838	841,087
Astronomy	43,647	45,323	46,780	53,198	55,156	68,118	82,707	89,868
Chemistry	189,967	202,251	222,335	244,297	257,228	267,142	276,014	299,425
Physics	237,443	255,873	270,179	298,999	320,926	355,567	384,871	389,076
Other, n.e.c.	17,773	20,401	28,552	35,310	34,386	49,204	58,246	62,720
Environmental sciences	322,582	358,721	376,393	403,237	437,580	472,144	482,441	567,137
Atmospheric	68,305	80,071	90,123	88,613	100,891	105,259	103,920	113,812
Earth sciences	97,619	100,672	96,228	107,033	110,886	123,546	134,724	152,244
Oceanography	132,640	149,771	158,458	175,511	188,494	199,056	195,152	236,882
Other, n.e.c.	23,998	28,207	31,584	32,080	37,289	44,282	48,644	64,219
Mathematical sciences	41,470	50,883	60,743	67,434	72,798	77,562	85,998	91,886
Computer sciences	65,849	82,677	91,983	94,145	108,201	123,048	159,783	158,246
Life sciences	1,892,792	2,047,372	2,229,503	2,530,982	2,802,992	2,946,328	3,177,014	3,498,809
Agricultural sciences	285,314	282,447	286,698	312,141	338,449	340,387	362,788	389,474
Biological sciences	693,402	746,707	798,193	904,288	985,332	1,031,648	1,113,458	1,221,097
Medical sciences	859,595	934,416	1,053,882	1,208,741	1,370,259	1,455,755	1,562,269	1,746,538
Other, n.e.c.	54,481	83,802	90,750	105,792	110,952	118,539	138,499	129,703
Psychology	67,487	71,614	75,993	86,841	98,703	108,409	131,158	151,313
Social sciences	101,007	115,004	109,387	128,443	148,201	167,633	187,740	202,580
Economics	33,912	35,094	32,331	35,561	41,351	43,982	49,288	56,002
Political science	12,271	12,086	12,297	12,616	12,738	14,033	15,703	17,769
Sociology	23,052	27,801	23,999	29,047	32,458	38,950	47,417	55,589
Other, n.e.c.	31,772	40,043	40,760	51,219	59,654	70,668	75,336	73,221
Other sciences, n.e.c.	73,216	89,157	96,791	99,677	104,257	113,997	86,652	76,886

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-11. Non-Federal R&D expenditures at public universities and colleges, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	2,795,243	3,270,947	3,721,175	4,057,490	4,651,730	5,186,970	5,748,372	6,035,934
Source of funds:								
State and local governments	683,915	831,559	926,493	995,732	1,108,694	1,203,577	1,341,435	1,367,433
Industry	342,533	439,944	494,293	546,511	636,588	737,556	794,616	857,491
Institutional funds	1,327,786	1,550,197	1,802,588	1,955,754	2,262,223	2,536,251	2,825,475	2,957,206
All other sources	441,007	449,247	497,801	559,493	644,226	709,586	786,846	853,805
Field:								
Engineering, total	415,597	504,302	596,780	662,636	791,736	894,824	1,007,139	1,048,445
Aeronautical and astronautical	13,552	14,365	19,204	19,345	21,529	25,044	31,476	34,262
Chemical	34,583	40,567	49,278	52,890	65,908	76,878	86,734	97,195
Civil	60,940	74,687	85,772	101,801	123,438	146,466	169,832	172,244
Electrical	75,205	94,464	110,577	125,994	148,976	162,549	174,704	186,698
Mechanical	50,024	56,760	68,108	82,292	98,264	117,699	131,006	137,523
Metallurgical and materials 1/	--	--	--	--	--	106,363	123,562	121,980
Other, n.e.c.	181,293	223,459	263,841	280,314	333,622	257,823	289,825	298,542
All sciences, total	2,379,646	2,766,645	3,124,395	3,394,854	3,859,994	4,292,146	4,741,232	4,987,489
Physical sciences	193,270	229,947	269,102	307,101	350,451	386,998	441,943	452,073
Astronomy	22,150	24,237	29,395	35,163	40,598	45,459	59,813	64,008
Chemistry	78,187	95,082	107,868	117,813	134,519	151,015	169,145	169,306
Physics	76,349	93,688	110,078	127,770	145,323	155,097	164,425	172,785
Other, n.e.c.	16,584	16,940	21,761	26,355	31,512	35,427	48,560	45,974
Environmental sciences	199,171	225,114	259,680	285,344	310,207	347,705	375,984	404,129
Atmospheric	19,707	20,050	21,668	22,132	32,293	38,517	41,832	43,808
Earth sciences	86,306	101,575	111,321	105,176	120,267	137,108	150,333	158,744
Oceanography	61,484	63,298	75,225	86,638	91,023	108,049	120,005	118,263
Other, n.e.c.	31,674	40,193	51,466	51,398	66,624	64,031	63,814	83,314
Mathematical sciences	25,670	32,226	39,334	41,326	47,715	51,097	49,561	52,647
Computer sciences	56,160	56,626	75,084	76,276	100,911	125,646	132,183	125,061
Life sciences	1,616,944	1,880,498	2,060,599	2,237,393	2,527,221	2,801,329	3,119,367	3,315,948
Agricultural sciences	678,407	766,323	793,586	820,528	901,285	963,720	1,047,644	1,067,202
Biological sciences	432,878	482,038	532,278	586,941	663,929	752,826	826,742	872,366
Medical sciences	452,252	536,982	653,988	748,551	869,042	977,367	1,127,179	1,245,123
Other, n.e.c.	53,407	71,155	80,747	81,373	92,965	107,417	117,802	131,258
Psychology	39,456	42,252	47,554	53,742	60,765	67,018	72,345	82,653
Social sciences	179,826	224,986	254,355	275,035	314,226	362,339	384,144	400,339
Economics	57,984	71,802	81,918	84,069	96,928	107,552	113,680	121,603
Political science	28,836	33,802	37,807	39,851	48,689	62,209	64,736	63,278
Sociology	26,490	33,291	34,765	42,761	49,018	56,508	66,264	62,836
Other, n.e.c.	66,516	86,091	99,865	108,354	119,591	136,070	139,461	152,622
Other sciences, n.e.c.	69,149	94,996	118,687	136,637	148,497	150,013	165,706	154,619

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-12. R&D expenditures at private universities and colleges, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	3,401,376	3,816,157	4,251,096	4,692,218	5,161,704	5,520,687	5,836,321	6,245,329
Source of funds:								
Federal Government	2,573,375	2,870,476	3,161,906	3,478,433	3,791,238	4,010,742	4,173,169	4,488,590
State and local governments	68,231	83,576	96,937	110,696	125,447	135,020	143,009	138,083
Industry	217,494	259,815	295,868	325,449	361,844	392,841	415,292	444,527
Institutional funds	289,266	318,812	365,939	400,928	451,682	496,486	578,890	619,201
All other sources	253,010	283,478	330,446	376,712	431,494	485,599	525,960	554,927
Field:								
Engineering, total	565,691	635,644	723,939	760,973	838,811	890,731	938,960	1,021,320
Aeronautical and astronautical	42,540	49,947	55,343	56,007	66,410	68,509	71,348	76,490
Chemical	40,671	48,740	56,374	60,261	72,758	74,837	89,392	88,875
Civil	37,943	40,455	46,184	54,650	51,721	54,510	57,391	64,664
Electrical	156,145	176,748	200,040	210,217	235,585	259,004	260,063	275,708
Mechanical	93,802	99,281	117,748	119,357	136,530	146,480	156,490	175,588
Metallurgical and materials 1/	--	--	--	--	--	73,673	75,159	81,311
Other, n.e.c.	194,590	220,473	248,250	260,481	275,806	213,717	229,119	258,686
All sciences, total	2,835,685	3,180,513	3,527,157	3,931,245	4,322,893	4,629,956	4,897,360	5,224,009
Physical sciences	466,041	532,829	580,930	616,531	630,765	682,310	721,276	764,682
Astronomy	30,286	32,235	32,254	38,403	40,836	56,017	66,426	78,071
Chemistry	153,058	172,052	182,942	202,731	217,788	232,770	225,804	232,485
Physics	237,261	281,025	293,204	314,892	319,761	331,140	342,536	353,485
Other, n.e.c.	45,436	47,317	52,530	60,805	52,380	62,383	86,510	100,641
Environmental sciences	183,546	192,113	202,787	225,305	266,436	260,081	271,436	277,533
Atmospheric	19,522	19,827	19,858	26,806	37,062	34,290	34,400	36,267
Earth sciences	69,872	72,143	76,349	81,995	91,203	94,799	99,776	103,282
Oceanography	63,849	66,925	66,266	71,133	85,865	76,837	81,630	82,281
Other, n.e.c.	30,303	33,218	40,314	45,369	52,308	54,155	55,631	55,703
Mathematical sciences	60,590	68,672	77,169	90,088	93,487	92,367	94,619	102,559
Computer sciences	158,747	182,013	205,344	238,088	263,078	285,143	281,627	272,245
Life sciences	1,769,079	1,982,405	2,237,983	2,489,656	2,751,592	3,000,494	3,199,596	3,415,059
Agricultural sciences	35,578	38,610	40,462	43,710	48,312	48,079	50,301	45,268
Biological sciences	654,107	716,797	812,685	907,398	991,526	1,072,342	1,114,907	1,225,471
Medical sciences	1,006,522	1,142,278	1,292,594	1,420,460	1,588,260	1,735,388	1,880,267	1,975,721
Other, n.e.c.	72,872	84,720	92,262	117,088	123,493	144,685	154,121	168,599
Psychology	51,233	56,334	63,738	72,388	77,323	82,648	87,243	102,141
Social sciences	102,487	122,466	138,512	148,734	176,506	176,337	183,262	214,289
Economics	26,164	28,816	35,126	43,379	49,797	50,229	48,041	47,056
Political science	18,272	22,811	30,883	34,193	41,954	39,353	44,732	62,594
Sociology	25,947	35,785	37,904	37,683	40,321	38,638	44,276	47,207
Other, n.e.c.	32,104	35,054	34,599	33,479	44,434	48,116	48,212	57,432
Other sciences, n.e.c.	43,962	43,881	40,694	51,155	63,705	70,576	78,301	75,502

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-13. Federally financed R&D expenditures at private universities and colleges, by science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Field	1985	1986	1987	1988	1989	1990	1991	1992
Total	2,573,375	2,870,476	3,161,906	3,478,433	3,791,238	4,010,742	4,173,169	4,488,590
Engineering, total	430,517	476,774	541,622	557,197	615,968	646,614	673,589	742,169
Aeronautical and astronautical	37,086	42,561	46,565	46,219	54,599	57,201	60,183	65,234
Chemical	23,663	30,331	33,942	36,096	45,793	45,733	49,768	50,337
Civil	24,561	25,518	30,975	34,620	30,611	32,017	33,096	40,254
Electrical	122,496	136,683	151,997	157,455	174,324	189,187	190,193	205,830
Mechanical	70,206	76,055	89,466	90,792	104,868	110,651	116,927	129,159
Metallurgical and materials 1/	--	--	--	--	--	45,569	46,554	51,452
Other, n.e.c.	152,505	165,626	188,677	192,013	205,774	166,255	176,868	199,904
All sciences, total	2,142,858	2,393,702	2,620,284	2,921,236	3,175,269	3,364,128	3,499,581	3,746,421
Physical sciences	400,990	458,210	483,183	527,645	529,453	573,754	600,773	635,358
Astronomy	20,746	24,363	24,409	30,546	32,282	44,039	51,497	62,785
Chemistry	122,648	135,861	145,488	158,377	165,382	177,757	171,292	176,841
Physics	215,494	254,241	264,618	282,591	284,220	295,797	303,059	312,348
Other, n.e.c.	42,102	43,745	48,668	56,131	47,569	56,161	74,926	83,384
Environmental sciences	151,418	158,041	169,269	185,876	223,192	218,688	225,403	232,046
Atmospheric	17,567	17,398	17,924	23,190	32,934	30,684	30,684	32,949
Earth sciences	56,452	59,436	63,295	67,489	75,193	80,873	81,735	83,769
Oceanography	55,026	58,292	59,244	62,997	77,448	68,577	72,658	74,002
Other, n.e.c.	22,373	22,915	28,806	32,200	37,617	38,554	40,326	41,326
Mathematical sciences	55,509	63,696	71,209	82,525	83,661	82,019	84,066	90,839
Computer sciences	129,816	149,927	165,280	194,984	214,278	217,004	209,299	219,188
Life sciences	1,295,271	1,445,283	1,606,330	1,794,632	1,979,515	2,130,755	2,230,062	2,395,962
Agricultural sciences	8,769	10,018	10,978	10,430	12,113	11,501	12,615	13,963
Biological sciences	515,499	564,382	620,464	698,525	749,531	810,255	830,631	918,488
Medical sciences	716,949	807,713	907,938	1,004,256	1,130,774	1,209,466	1,280,243	1,342,365
Other, n.e.c.	54,054	63,170	66,950	81,421	87,097	99,530	108,573	121,148
Psychology	38,417	42,387	47,837	53,517	57,099	59,911	60,903	70,328
Social sciences	52,799	57,863	59,310	60,545	65,575	58,087	63,787	75,849
Economics	9,799	10,354	11,094	13,610	12,866	10,216	10,365	10,124
Political science	7,398	8,108	11,738	12,547	12,835	11,110	12,584	18,044
Sociology	17,428	21,959	20,818	19,383	21,271	20,687	24,644	26,789
Other, n.e.c.	18,174	17,444	15,660	15,005	18,604	16,074	16,194	20,893
Other sciences, n.e.c.	18,638	18,295	17,866	21,512	22,495	23,911	25,287	26,853

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-14. Non-Federal R&D expenditures at private universities and colleges, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	828,001	945,681	1,089,190	1,213,785	1,370,466	1,509,948	1,663,151	1,756,738
Source of funds:								
State and local governments	68,231	83,576	96,937	110,696	125,447	135,020	143,009	138,083
Industry	217,494	259,815	295,868	325,449	361,844	392,841	415,292	444,527
Institutional funds	289,266	318,812	365,939	400,928	451,682	496,486	578,890	619,201
All other sources	253,010	283,478	330,446	376,712	431,494	485,599	525,960	554,927
Field:								
Engineering, total	135,174	158,870	182,317	203,776	222,842	244,117	265,372	279,150
Aeronautical and astronautical	5,454	7,386	8,778	9,788	11,811	11,308	11,163	11,256
Chemical	17,008	18,409	22,432	24,163	26,985	29,104	39,624	38,538
Civil	13,382	14,937	15,209	20,030	21,111	22,493	24,295	24,410
Electrical	33,649	40,085	48,043	52,762	61,262	69,816	69,870	69,876
Mechanical	23,596	23,226	28,282	28,565	31,662	35,929	39,563	46,429
Metallurgical and materials 1/	--	--	--	--	--	28,104	28,605	29,859
Other, n.e.c.	42,085	54,847	59,573	68,468	70,032	47,462	52,251	58,782
All sciences, total	692,827	786,811	906,873	1,010,009	1,147,624	1,265,829	1,397,780	1,477,588
Physical sciences	65,051	74,419	77,747	89,186	101,312	108,557	120,503	129,326
Astronomy	9,540	7,872	7,845	7,857	8,554	11,978	14,929	15,286
Chemistry	30,410	36,191	37,454	44,354	52,407	55,013	54,513	55,644
Physics	21,767	26,784	28,586	32,301	35,541	35,344	39,477	41,139
Other, n.e.c.	3,334	3,572	3,862	4,674	4,811	6,222	11,584	17,257
Environmental sciences	32,128	34,072	33,518	39,429	43,246	41,393	46,033	45,487
Atmospheric	1,955	2,429	1,934	3,618	4,128	3,606	3,716	3,318
Earth sciences	13,420	12,707	13,054	14,506	16,010	13,926	18,040	19,514
Oceanography	8,823	8,633	7,022	8,136	8,417	8,260	8,972	8,279
Other, n.e.c.	7,930	10,303	11,508	13,169	14,691	15,601	15,305	14,377
Mathematical sciences	5,081	4,976	5,960	7,563	9,825	10,348	10,554	11,720
Computer sciences	28,931	32,086	40,064	43,104	48,799	48,139	52,327	53,057
Life sciences	473,808	537,122	631,653	694,024	772,077	869,740	969,534	1,019,097
Agricultural sciences	26,809	28,592	29,484	33,280	36,199	36,578	37,866	31,305
Biological sciences	138,608	152,415	192,201	208,873	241,995	282,087	284,276	306,993
Medical sciences	289,573	334,565	384,656	416,204	457,487	525,919	600,024	633,356
Other, n.e.c.	18,818	21,550	25,312	35,667	36,396	45,155	47,548	47,453
Psychology	12,816	13,947	15,901	18,871	20,224	22,737	26,340	31,813
Social sciences	49,688	64,603	79,202	88,189	110,931	118,250	119,474	138,440
Economics	16,365	18,462	24,032	29,769	36,931	40,013	37,676	36,932
Political science	10,874	14,705	19,145	21,646	29,119	28,243	32,148	44,551
Sociology	8,519	13,826	17,066	18,300	19,050	17,951	19,632	20,418
Other, n.e.c.	13,930	17,610	18,939	18,474	25,830	32,043	30,018	36,539
Other sciences, n.e.c.	25,324	25,586	22,828	29,643	41,210	46,665	53,014	48,649

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-15. R&D expenditures at doctorate-granting institutions, by source of funds, science and engineering field, and control: fiscal years 1985, 1991, and 1992

[Dollars in thousands]

Source and field	Total			Public			Private		
	1985	1991	1992	1985	1991	1992	1985	1991	1992
Total	9,547,107	17,326,346	18,504,707	6,175,758	11,546,264	12,327,678	3,371,349	5,780,082	6,177,029
Source of funds:									
Federal Government	5,973,212	10,045,329	10,875,392	3,417,717	5,906,671	6,431,753	2,555,495	4,138,658	4,443,639
State and local governments	738,306	1,449,347	1,464,412	671,106	1,308,077	1,327,754	67,200	141,270	136,658
Industry	550,054	1,185,191	1,258,036	336,545	775,205	820,241	213,509	409,986	437,795
Institutional funds	1,599,895	3,354,844	3,522,478	1,314,215	2,784,720	2,912,572	285,680	570,124	609,904
All other sources	685,640	1,291,635	1,384,391	436,175	771,591	835,358	249,465	520,044	549,033
Field:									
Engineering, total	1,400,236	2,861,012	3,005,261	838,990	1,924,672	1,987,833	561,243	936,340	1,017,428
Aeronautical and astronautical	78,259	173,353	188,942	36,000	102,007	112,452	42,259	71,346	76,490
Chemical	115,142	242,065	259,844	74,592	153,027	171,151	40,550	89,038	88,693
Civil	150,728	308,285	332,194	114,295	250,932	267,595	36,433	57,353	64,599
Electrical	333,497	671,269	690,989	178,601	411,307	415,419	154,896	259,962	275,570
Mechanical	204,483	411,964	436,943	111,436	257,488	266,419	93,047	154,476	172,524
Metallurgical and materials 1/	--	305,307	292,204	--	230,148	211,092	--	75,159	81,112
Other, n.e.c.	518,127	748,769	802,145	324,066	519,763	543,705	194,061	229,006	258,440
All sciences, total	8,146,871	14,465,334	15,499,446	5,336,768	9,621,592	10,339,845	2,810,103	4,843,742	5,159,601
Physical sciences	1,119,221	1,883,360	1,989,131	660,683	1,179,505	1,244,957	458,538	703,855	744,174
Astronomy	95,478	208,718	231,542	65,460	142,307	153,471	30,018	66,411	78,071
Chemistry	405,771	636,817	663,474	256,557	421,168	443,234	149,214	215,649	220,240
Physics	536,957	846,221	885,995	304,932	510,627	540,773	234,025	335,594	345,222
Other, n.e.c.	79,015	191,604	208,120	33,734	105,403	107,479	45,281	86,201	100,641
Environmental sciences	669,227	1,093,337	1,204,787	508,885	829,197	933,796	160,342	264,140	270,991
Atmospheric	105,129	169,884	184,927	87,231	141,047	153,563	17,898	28,837	31,364
Earth sciences	249,078	375,751	402,034	180,003	277,244	299,986	69,075	98,507	102,048
Oceanography	254,246	383,888	420,344	191,035	302,258	338,083	63,211	81,630	82,261
Other, n.e.c.	60,774	163,814	197,482	50,616	108,648	142,164	30,158	55,166	55,298
Mathematical sciences	123,955	221,800	237,332	63,861	129,037	138,017	60,094	92,763	99,315
Computer sciences	275,913	544,910	544,132	118,207	284,890	273,578	157,706	260,020	270,554
Life sciences	5,232,111	9,399,151	10,119,362	3,471,265	6,217,318	6,727,995	1,760,846	3,181,833	3,391,367
Agricultural sciences	978,789	1,417,572	1,465,537	943,220	1,369,087	1,422,151	35,569	48,485	43,386
Biological sciences	1,758,112	3,008,721	3,265,020	1,110,053	1,908,060	2,059,706	648,059	1,100,661	1,205,314
Medical sciences	2,316,398	4,564,957	4,982,090	1,311,181	2,686,141	2,987,802	1,005,217	1,878,816	1,974,288
Other, n.e.c.	178,812	407,901	426,715	106,811	254,030	258,336	72,001	153,871	168,379
Psychology	153,131	271,800	315,495	103,623	187,547	217,701	49,508	84,253	97,794
Social sciences	369,794	729,605	791,760	270,308	548,638	579,314	99,486	180,967	212,446
Economics	116,145	203,762	217,026	90,484	156,270	170,512	25,661	47,492	46,514
Political science	58,008	124,002	142,060	40,061	79,615	79,794	17,947	44,387	62,266
Sociology	71,015	150,963	159,545	46,546	107,275	112,724	24,469	43,688	46,821
Other, n.e.c.	124,626	250,878	273,129	93,215	205,478	216,284	31,411	45,400	56,845
Other sciences, n.e.c.	183,519	321,371	297,447	139,938	245,460	224,487	43,581	75,911	72,960

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-16. Federally financed R&D expenditures at doctorate-granting institutions, by science and engineering field and control: fiscal years 1985, 1991, and 1992

[Dollars in thousands]

Field	Total			Public			Private		
	1985	1991	1992	1985	1991	1992	1985	1991	1992
Total	5,973,212	10,045,329	10,875,392	3,417,717	5,906,671	6,431,753	2,555,495	4,138,658	4,443,639
Engineering, total	857,245	1,612,701	1,724,884	428,652	940,009	984,091	428,593	672,692	740,793
Aeronautical and astronautical	59,489	131,320	144,026	22,664	71,137	78,792	36,825	60,183	65,234
Chemical	63,784	116,547	125,500	40,130	67,133	75,345	23,654	49,414	50,155
Civil	77,413	120,983	142,561	54,074	87,914	102,349	23,339	33,069	40,212
Electrical	226,705	431,142	442,205	104,420	240,970	236,431	122,285	190,172	205,774
Mechanical	132,237	245,247	262,724	62,094	128,815	134,403	70,143	116,432	128,321
Metallurgical and materials 1/	--	153,597	141,805	--	107,043	90,552	--	46,554	51,253
Other, n.e.c.	297,617	413,865	468,063	145,270	236,997	266,219	152,347	176,868	199,844
All sciences, total	5,115,967	8,432,628	9,150,508	2,989,065	4,966,662	5,447,662	2,126,902	3,465,966	3,702,846
Physical sciences	868,759	1,342,462	1,430,122	472,487	752,166	807,963	396,272	590,296	622,159
Astronomy	63,919	134,010	152,254	43,375	82,513	89,469	20,544	51,497	62,785
Chemistry	301,986	426,244	451,478	181,339	259,451	280,659	120,647	166,793	170,819
Physics	443,242	649,804	681,092	230,246	352,724	375,921	212,996	297,080	305,171
Other, n.e.c.	59,612	132,404	145,298	17,527	57,478	61,914	42,085	74,926	83,384
Environmental sciences	464,225	685,717	776,635	314,728	466,611	550,156	149,497	219,106	226,479
Atmospheric	83,625	125,925	138,709	67,682	100,804	110,663	15,943	25,121	28,046
Earth sciences	151,968	213,366	232,614	95,772	131,924	149,173	56,196	81,442	83,441
Oceanography	185,946	260,162	302,932	130,948	187,504	228,930	54,998	72,658	74,002
Other, n.e.c.	42,686	86,264	102,380	20,326	46,379	61,390	22,360	39,885	40,990
Mathematical sciences	94,226	165,202	176,307	38,981	82,328	87,746	55,245	82,874	88,561
Computer sciences	192,734	364,516	371,606	63,298	156,588	153,744	129,436	207,928	217,862
Life sciences	3,155,240	5,346,100	5,820,393	1,865,289	3,127,633	3,441,489	1,289,951	2,218,467	2,378,904
Agricultural sciences	278,308	347,376	381,534	269,540	336,509	369,401	8,768	10,867	12,133
Biological sciences	1,194,887	1,914,985	2,103,712	683,050	1,093,101	1,199,224	511,837	821,884	904,488
Medical sciences	1,575,057	2,840,005	3,085,409	858,976	1,560,728	1,744,205	716,081	1,279,277	1,341,204
Other, n.e.c.	106,988	243,754	249,738	53,723	137,295	128,659	53,265	106,459	121,079
Psychology	102,377	176,522	204,772	65,244	117,582	137,724	37,133	58,940	67,048
Social sciences	148,252	243,354	270,574	97,320	180,008	195,037	50,932	63,346	75,537
Economics	42,797	56,495	62,750	33,198	46,135	52,649	9,599	10,360	10,101
Political science	19,148	28,021	35,665	11,923	15,512	17,705	7,225	12,509	17,960
Sociology	38,320	69,547	79,895	22,067	45,239	53,214	16,253	24,308	26,681
Other, n.e.c.	47,987	89,291	92,264	30,132	73,122	71,469	17,855	16,169	20,795
Other sciences, n.e.c.	90,154	108,755	100,099	71,718	83,746	73,803	18,436	25,009	26,296

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-17. Non-Federal R&D expenditures at doctorate-granting institutions, by source of funds, science and engineering field, and control: fiscal years 1985, 1991, and 1992

[Dollars in thousands]

Source and field	Total			Public			Private		
	1985	1991	1992	1985	1991	1992	1985	1991	1992
Total	3,573,895	7,281,017	7,629,315	2,758,041	5,639,593	5,895,925	815,854	1,641,424	1,733,390
Source of funds:									
State and local governments	738,306	1,449,347	1,464,412	671,106	1,308,077	1,327,754	67,200	141,270	136,658
Industry	550,054	1,185,191	1,258,036	336,545	775,205	820,241	213,509	409,986	437,795
Institutional funds	1,599,895	3,354,844	3,522,476	1,314,215	2,784,720	2,912,572	285,680	570,124	609,904
All other sources	685,640	1,291,635	1,384,391	436,175	771,591	835,358	249,465	520,044	549,033
Field:									
Engineering, total	542,991	1,248,311	1,280,377	410,338	984,663	1,003,742	132,653	263,648	276,635
Aeronautical and astronautical	18,770	42,033	44,916	13,336	30,870	33,660	5,434	11,163	11,256
Chemical	51,358	125,518	134,344	34,462	85,894	95,806	16,896	39,624	38,538
Civil	73,315	187,302	189,633	60,221	163,018	165,246	13,094	24,284	24,387
Electrical	106,792	240,127	248,784	74,181	170,337	178,988	32,611	69,790	69,796
Mechanical	72,246	166,717	176,219	49,342	128,673	132,016	22,904	38,044	44,203
Metallurgical and materials 1/	--	151,710	150,399	--	123,105	120,540	--	28,605	29,859
Other, n.e.c.	220,510	334,904	336,082	178,796	282,766	277,486	41,714	52,138	58,596
All sciences, total	3,030,904	6,032,706	6,348,938	2,347,703	4,654,930	4,892,183	683,201	1,377,776	1,456,755
Physical sciences	250,462	540,898	559,009	188,196	427,339	436,994	62,266	113,559	122,015
Astronomy	31,559	74,708	79,288	22,085	59,794	64,002	9,474	14,914	15,286
Chemistry	103,785	210,573	211,996	75,218	161,717	162,575	28,567	48,856	49,421
Physics	95,715	196,417	204,903	74,686	157,903	164,852	21,029	38,514	40,051
Other, n.e.c.	19,403	59,200	62,822	16,207	47,925	45,565	3,196	11,275	17,257
Environmental sciences	225,002	407,620	428,152	194,157	382,586	383,640	30,845	45,034	44,512
Atmospheric	21,504	43,959	46,218	19,549	40,243	42,900	1,955	3,716	3,318
Earth sciences	97,110	162,385	169,420	84,231	145,320	150,813	12,879	17,065	18,607
Oceanography	68,300	123,726	117,412	60,087	114,754	109,133	8,213	8,972	8,279
Other, n.e.c.	38,086	77,550	95,102	30,290	62,269	80,794	7,798	15,281	14,308
Mathematical sciences	29,729	56,598	61,025	24,880	46,709	50,271	4,849	9,889	10,754
Computer sciences	83,179	180,394	172,526	54,909	133,302	119,834	28,270	52,092	52,692
Life sciences	2,076,871	4,053,051	4,298,969	1,605,976	3,089,685	3,286,506	470,895	963,366	1,012,463
Agricultural sciences	700,481	1,070,196	1,084,003	673,680	1,032,578	1,052,750	26,801	37,618	31,253
Biological sciences	563,225	1,093,756	1,161,308	427,003	814,959	860,482	136,222	278,797	300,826
Medical sciences	741,341	1,724,952	1,876,681	452,205	1,125,413	1,243,597	289,136	599,539	633,084
Other, n.e.c.	71,824	164,147	176,977	53,088	116,735	129,677	18,736	47,412	47,300
Psychology	50,754	95,278	110,723	38,379	69,965	79,977	12,375	25,313	30,746
Social sciences	221,542	486,251	521,186	172,986	368,630	384,277	48,556	117,621	136,909
Economics	73,348	147,267	154,276	57,286	110,135	117,863	16,062	37,132	36,413
Political science	38,860	95,981	106,395	28,138	64,103	62,089	10,722	31,878	44,306
Sociology	32,695	81,416	79,650	24,479	62,036	59,510	8,216	19,380	20,140
Other, n.e.c.	76,639	161,587	180,865	63,083	132,356	144,815	13,556	29,231	36,050
Other sciences, n.e.c.	93,365	212,616	197,348	68,220	161,714	150,684	25,145	50,902	46,664

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-18. R&D expenditures at historically black colleges and universities, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	63,115	72,577	74,822	93,818	130,728	142,452	150,305	177,899
Source of funds:								
Federal Government	57,873	60,910	61,572	75,998	108,548	117,200	122,080	146,707
State and local governments	1,150	1,163	2,528	4,475	6,883	6,931	6,505	9,053
Industry	1,377	1,797	1,637	3,292	3,986	5,332	3,102	4,145
Institutional funds	1,867	7,223	7,884	8,392	12,086	11,035	13,744	14,096
All other sources	848	1,484	1,201	1,661	1,245	1,954	4,874	3,898
Field:								
Engineering, total	5,077	6,898	6,400	7,814	10,529	13,845	16,889	20,733
Aeronautical and astronautical	250	263	371	410	226	119	170	423
Chemical	140	220	184	607	680	1,014	1,171	1,114
Civil	191	134	906	1,340	1,198	1,022	1,231	2,475
Electrical	1,119	1,467	2,123	1,915	2,763	2,530	4,133	4,144
Mechanical	1,002	1,619	1,912	2,224	3,108	3,412	4,484	7,142
Metallurgical and materials 1/	--	--	--	--	--	1,375	1,345	245
Other, n.e.c.	2,375	3,195	904	1,318	2,574	4,173	4,355	5,190
All sciences, total	58,038	65,679	68,422	86,004	120,199	128,807	133,416	157,166
Physical sciences	11,425	13,345	13,717	14,350	21,133	25,990	25,449	29,294
Astronomy	16	26	12	27	0	0	164	367
Chemistry	7,514	8,950	7,828	9,332	12,111	12,426	11,740	11,959
Physics	3,622	4,136	5,749	4,990	8,856	13,331	13,071	16,560
Other, n.e.c.	273	233	128	1	166	233	474	408
Environmental sciences	1,741	1,829	2,111	2,401	2,642	4,090	3,923	3,318
Atmospheric	21	0	0	3	388	625	542	667
Earth sciences	350	286	303	328	526	461	211	666
Oceanography	305	381	208	397	27	48	25	98
Other, n.e.c.	1,065	1,162	1,600	1,673	1,701	2,956	3,145	1,885
Mathematical sciences	922	1,444	311	244	728	948	1,574	3,407
Computer sciences	441	572	895	1,223	2,426	2,540	5,276	4,088
Life sciences	39,010	42,247	44,679	57,828	82,574	84,153	88,942	105,722
Agricultural sciences	18,190	18,999	18,538	22,148	34,112	33,715	38,745	44,769
Biological sciences	13,038	13,214	16,573	25,822	36,322	37,908	37,468	45,602
Medical sciences	7,089	9,215	8,514	8,998	11,024	11,765	10,584	12,542
Other, n.e.c.	693	819	1,054	860	1,116	765	2,145	2,809
Psychology	221	352	628	494	1,494	1,706	1,336	2,053
Social sciences	3,737	4,929	4,486	8,536	8,032	7,906	5,893	8,002
Economics	1,310	634	290	838	864	1,528	2,404	2,847
Political science	870	930	651	1,095	1,200	1,028	159	364
Sociology	934	975	649	2,059	1,673	2,081	2,373	2,469
Other, n.e.c.	623	2,390	2,898	4,544	4,295	3,269	757	2,322
Other sciences, n.e.c.	541	961	1,593	928	1,170	1,474	1,223	1,302

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-19. Federally financed R&D expenditures at historically black colleges and universities, by science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Field	1985	1986	1987	1988	1989	1990	1991	1992
Total	57,873	60,910	61,572	75,998	106,548	117,200	122,080	146,707
Engineering, total	4,372	4,911	4,331	5,665	8,008	11,839	12,295	16,034
Aeronautical and astronautical	243	256	350	382	123	119	170	423
Chemical	140	158	123	554	586	747	791	852
Civil	184	130	585	811	880	647	278	1,314
Electrical	962	1,031	1,381	1,358	1,906	2,075	3,173	3,446
Mechanical	878	1,279	1,480	1,964	2,787	3,106	3,616	5,467
Metallurgical and materials 1/	--	--	--	--	--	1,375	1,178	245
Other, n.e.c.	1,965	2,057	412	596	1,726	3,770	3,089	4,287
All sciences, total	53,501	55,999	57,241	70,333	98,540	105,361	109,785	130,673
Physical sciences	10,483	10,956	11,756	11,940	17,706	21,729	21,490	24,498
Astronomy	16	26	12	27	0	0	164	367
Chemistry	6,936	6,969	6,347	7,633	10,292	10,731	10,368	11,057
Physics	3,331	3,708	5,269	4,279	7,291	10,829	10,540	12,678
Other, n.e.c.	200	233	128	1	123	169	418	396
Environmental sciences	1,270	1,278	1,392	1,641	1,406	1,334	2,078	2,020
Atmospheric	19	0	0	3	129	105	104	212
Earth sciences	316	245	239	250	248	252	150	556
Oceanography	297	348	206	372	2	22	0	74
Other, n.e.c.	638	685	947	1,016	1,029	955	1,824	1,178
Mathematical sciences	889	955	269	188	486	676	1,281	2,637
Computer sciences	428	525	801	1,088	2,037	1,930	4,523	3,477
Life sciences	36,552	36,896	38,740	50,360	71,199	72,802	74,556	90,808
Agricultural sciences	16,993	17,778	16,774	21,039	30,388	29,667	34,013	40,125
Biological sciences	12,488	11,914	14,865	21,825	31,534	33,532	32,700	39,848
Medical sciences	6,409	6,431	6,065	6,641	8,902	9,338	6,878	9,946
Other, n.e.c.	662	773	1,036	855	375	265	965	889
Psychology	213	343	589	452	1,108	1,240	1,263	1,597
Social sciences	3,153	4,135	2,238	3,932	3,649	4,923	4,212	4,777
Economics	1,247	522	203	548	755	1,296	2,137	2,570
Political science	713	697	384	438	566	433	83	160
Sociology	769	764	162	185	442	649	1,488	1,478
Other, n.e.c.	424	2,152	1,509	2,761	1,886	2,545	504	569
Other sciences, n.e.c.	513	911	1,456	732	947	727	382	859

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-20. Non-Federal R&D expenditures at historically black colleges and universities, by source of funds and science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Source and field	1985	1986	1987	1988	1989	1990	1991	1992
Total	5,242	11,667	13,250	17,820	24,180	25,252	28,225	31,192
Source of funds:								
State and local governments	1,150	1,163	2,528	4,475	6,883	6,931	6,505	9,053
Industry	1,377	1,797	1,637	3,292	3,966	5,332	3,102	4,145
Institutional funds	1,867	7,223	7,884	8,392	12,086	11,035	13,744	14,096
All other sources	848	1,484	1,201	1,661	1,245	1,954	4,874	3,898
Field:								
Engineering, total	705	1,987	2,069	2,149	2,521	1,806	4,594	4,699
Aeronautical and astronautical	7	7	21	28	103	0	0	0
Chemical	0	62	61	53	74	267	380	262
Civil	7	4	321	529	318	375	953	1,161
Electrical	157	436	742	557	857	455	960	698
Mechanical	124	340	432	260	321	306	868	1,675
Metallurgical and materials 1/	--	--	--	--	--	0	167	0
Other, n.e.c.	410	1,138	492	722	848	403	1,266	903
All sciences, total	4,537	9,680	11,181	15,671	21,659	23,446	23,631	26,493
Physical sciences	942	2,389	1,961	2,410	3,427	4,261	3,959	4,796
Astronomy	0	0	0	0	0	0	0	0
Chemistry	578	1,961	1,481	1,699	1,819	1,695	1,372	902
Physics	291	428	480	711	1,585	2,502	2,531	3,882
Other, n.e.c.	73	0	0	0	43	64	56	12
Environmental sciences	471	551	719	760	1,234	2,756	1,845	1,298
Atmospheric	2	0	0	0	259	520	438	455
Earth sciences	34	41	64	78	278	209	61	112
Oceanography	8	33	2	25	25	26	25	24
Other, n.e.c.	427	477	653	657	672	2,001	1,321	707
Mathematical sciences	33	489	42	56	242	272	293	770
Computer sciences	13	47	94	135	389	610	753	591
Life sciences	2,458	5,351	5,939	7,468	11,375	11,351	14,386	14,914
Agricultural sciences	1,197	1,221	1,764	1,109	3,724	4,048	4,732	4,644
Biological sciences	550	1,300	1,708	3,997	4,788	4,376	4,768	5,754
Medical sciences	680	2,784	2,449	2,357	2,122	2,427	3,706	2,596
Other, n.e.c.	31	46	18	5	741	500	1,180	1,920
Psychology	8	9	39	42	386	466	73	456
Social sciences	584	794	2,250	4,604	4,383	2,983	1,481	3,225
Economics	63	112	87	290	109	232	267	277
Political science	157	233	287	657	634	595	76	204
Sociology	165	211	487	1,874	1,231	1,432	885	991
Other, n.e.c.	199	238	1,389	1,783	2,409	724	253	1,753
Other sciences, n.e.c.	28	50	137	198	223	747	841	443

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-21. R&D expenditures at universities and colleges, by geographic division and source: fiscal year 1992

[Dollars in millions]

Division	Total	Federal	Non-Federal
Total	18,880	11,087	7,793
New England	1,620	1,106	514
Middle Atlantic	2,898	1,809	1,089
East North Central	2,644	1,453	1,192
West North Central	1,265	613	652
South Atlantic	3,472	2,086	1,386
East South Central	745	426	319
West South Central	1,798	789	1,010
Mountain	1,182	685	498
Pacific	3,203	2,093	1,110
Outlying Areas	51	28	24

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-22. R&D expenditures at doctorate-granting institutions, by geographic division, State, and source of funds: fiscal year 1992

[Dollars in thousands]

Division and State	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Total	18,504,707	10,875,392	1,464,412	1,258,036	3,522,476	1,384,391
New England	1,805,561	1,096,507	35,107	125,380	196,137	152,430
Connecticut	341,182	206,869	6,187	15,273	78,865	33,968
Maine	23,213	8,975	1,320	3,545	8,892	481
Massachusetts	1,007,705	724,121	14,461	94,639	67,169	107,315
New Hampshire	87,412	60,382	5,175	4,451	11,421	5,983
Rhode Island	96,507	63,383	5,434	3,135	22,345	2,210
Vermont	49,542	32,757	2,530	4,337	7,445	2,473
Middle Atlantic	2,834,213	1,766,080	139,494	225,341	462,375	240,943
New Jersey	376,540	162,818	41,882	25,972	119,163	26,705
New York	1,490,641	987,652	75,320	87,927	185,836	153,906
Pennsylvania	967,032	615,590	22,292	111,442	157,376	60,332
East North Central	2,625,663	1,445,126	229,115	168,266	535,913	247,243
Illinois	726,917	394,505	52,843	43,574	171,466	64,729
Indiana	282,982	153,981	20,271	21,165	64,601	22,964
Michigan	650,400	339,328	39,907	44,903	163,068	63,194
Ohio	546,256	319,575	50,177	39,876	82,022	54,606
Wisconsin	419,108	237,737	66,117	18,748	54,756	41,750
West North Central	1,248,135	604,742	174,054	85,547	308,383	75,409
Iowa	228,721	133,612	31,006	21,563	71,144	11,396
Kansas	139,012	53,150	30,467	8,302	42,537	4,556
Minnesota	317,142	165,971	49,720	17,537	61,587	22,327
Missouri	321,255	180,743	17,703	27,152	69,381	26,296
Nebraska	131,038	38,600	37,523	8,529	38,051	8,335
North Dakota	52,731	24,572	1,085	2,056	23,417	1,601
South Dakota	18,236	8,094	6,550	408	2,286	898
South Atlantic	3,403,825	2,039,436	297,188	257,011	655,613	154,578
Delaware	48,970	21,829	4,702	5,075	14,522	3,042
District of Columbia	133,524	94,107	1,428	8,113	15,871	14,005
Florida	422,993	225,080	31,775	35,077	108,535	22,546
Georgia	513,009	256,701	39,836	42,067	159,249	15,157
Maryland	1,151,400	825,739	82,288	44,211	166,264	32,898
North Carolina	551,349	332,927	69,901	63,625	65,197	19,699
South Carolina	163,839	59,688	15,480	19,081	51,932	17,678
Virginia	365,484	195,221	49,472	34,187	61,868	24,736
West Virginia	53,257	28,363	2,307	5,595	12,175	4,817
East South Central	718,756	402,812	78,882	57,060	135,689	44,313
Alabama	251,484	136,885	26,313	21,620	47,114	19,552
Kentucky	109,644	47,095	5,096	12,800	39,870	4,793
Mississippi	98,555	54,512	18,187	9,141	11,029	5,686
Tennessee	259,073	164,320	29,296	13,499	37,676	14,282
West South Central	1,752,432	768,317	245,200	117,231	419,699	201,985
Arkansas	60,657	22,083	15,441	5,381	14,321	3,451
Louisiana	243,614	89,089	64,885	17,757	51,397	20,486
Oklahoma	169,427	46,486	19,578	10,170	76,907	16,286
Texas	1,278,734	610,679	145,296	83,923	277,074	161,762
Mountain	1,180,477	684,332	75,354	91,108	262,969	66,714
Arizona	299,733	143,240	7,299	19,130	110,306	19,758
Colorado	285,736	203,402	13,333	20,776	21,776	26,449
Idaho	46,898	17,343	10,681	5,147	13,232	493
Montana	44,598	18,467	10,285	3,230	11,545	1,069
Nevada	71,425	35,569	3,109	5,992	25,553	1,172
New Mexico	189,179	110,587	15,121	22,480	31,320	9,691
Utah	212,731	142,396	12,874	11,532	38,330	7,599
Wyoming	30,181	13,298	2,652	2,841	10,907	483
Pacific	3,089,104	2,042,868	181,878	130,076	535,469	198,783
Alaska	67,881	32,088	3,690	3,275	27,205	1,655
California	2,338,478	1,542,897	111,168	90,829	427,366	166,218
Hawaii	80,258	47,684	26,775	337	3,319	2,143
Oregon	203,893	124,198	27,244	6,734	30,184	15,553
Washington	398,594	296,053	13,011	28,901	47,415	13,214
Outlying Areas	46,541	25,163	8,140	1,016	10,229	1,993

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-23. R&D expenditures at doctorate-granting institutions, by geographic division and State: fiscal years 1985-92

[Dollars in thousands]

Division and State	1985	1986	1987	1988	1989	1990	1991	1992
Total	9,547,107	10,773,115	11,989,574	13,279,537	14,757,061	16,048,230	17,326,346	18,504,707
New England	948,319	1,039,272	1,115,314	1,234,706	1,336,621	1,422,595	1,510,919	1,605,561
Connecticut	194,928	212,815	230,790	254,958	284,410	302,659	320,935	341,182
Maine	20,621	19,315	16,952	17,341	19,974	23,605	27,082	23,213
Massachusetts	608,887	673,378	719,581	790,391	867,521	898,804	948,938	1,007,705
New Hampshire	39,680	44,330	50,928	57,658	62,172	69,731	78,975	87,412
Rhode Island	56,597	59,735	65,516	77,543	79,801	82,634	88,448	96,507
Vermont	27,606	29,699	31,547	36,815	42,743	45,162	46,541	49,542
Middle Atlantic	1,527,490	1,749,417	1,935,109	2,143,366	2,352,278	2,520,575	2,644,739	2,834,213
New Jersey	141,476	180,841	214,696	243,271	281,890	326,028	349,902	376,540
New York	927,376	1,021,409	1,108,478	1,224,983	1,309,258	1,365,029	1,416,116	1,490,641
Pennsylvania	458,638	547,167	611,935	675,112	761,130	829,518	878,721	967,032
East North Central	1,353,660	1,509,270	1,709,642	1,897,912	2,081,176	2,235,583	2,452,608	2,625,663
Illinois	392,793	438,991	498,221	546,300	602,558	646,927	697,585	726,917
Indiana	158,983	176,374	188,086	211,813	227,266	240,696	262,508	282,982
Michigan	301,335	341,905	396,580	438,420	487,192	527,407	601,189	650,400
Ohio	261,448	287,603	329,344	381,895	427,345	457,189	503,725	546,256
Wisconsin	239,101	264,397	297,411	319,484	336,815	363,364	387,621	419,108
West North Central	646,013	738,470	801,223	869,292	964,779	1,072,851	1,209,462	1,248,135
Iowa	132,251	146,312	157,539	181,481	209,394	232,472	259,437	268,721
Kansas	80,144	90,579	93,931	99,655	107,856	114,851	124,174	139,012
Minnesota	173,322	201,743	222,381	236,115	258,614	292,046	331,471	317,142
Missouri	160,985	185,935	205,597	232,148	255,009	285,003	305,780	321,255
Nebraska	60,503	71,088	74,468	83,122	93,508	104,371	123,711	131,036
North Dakota	29,649	31,840	35,912	24,444	27,951	29,988	48,930	52,731
South Dakota	9,159	10,973	11,395	12,327	12,449	14,342	15,959	18,236
South Atlantic	1,587,615	1,818,813	2,095,181	2,328,705	2,735,597	2,973,001	3,216,535	3,403,825
Delaware	23,605	28,798	31,681	32,023	37,194	40,119	44,698	48,970
District of Columbia	64,692	73,170	85,470	94,851	111,325	112,146	118,398	133,524
Florida	210,824	236,478	278,847	298,933	385,556	433,413	438,054	422,993
Georgia	231,458	291,036	331,000	372,720	424,424	452,907	484,019	513,009
Maryland	541,776	606,632	723,915	795,718	921,848	977,593	1,088,420	1,151,400
North Carolina	254,370	281,929	313,819	366,995	419,848	441,880	501,841	551,349
South Carolina	68,768	86,603	95,811	102,160	120,137	137,269	151,204	163,839
Virginia	169,738	189,876	207,934	234,887	275,897	329,666	339,131	365,484
West Virginia	22,384	24,291	26,704	30,418	39,368	48,028	50,772	53,257
East South Central	329,596	396,603	445,978	526,652	576,513	641,402	684,725	718,756
Alabama	104,137	133,410	152,925	180,809	209,584	239,556	248,299	251,484
Kentucky	53,790	68,552	78,008	91,948	83,998	90,880	97,989	109,844
Mississippi	54,514	61,291	76,882	67,050	78,922	88,991	100,383	98,556
Tennessee	117,155	133,310	155,163	186,845	204,029	221,975	240,054	259,073
West South Central	884,827	981,094	1,[illegible]236	1,209,435	1,351,243	1,510,818	1,658,954	1,752,432
Arkansas	30,051	35,379	35,529	37,955	43,676	48,861	55,081	60,657
Louisiana	125,478	134,200	148,563	165,623	180,032	207,509	235,726	243,614
Oklahoma	96,407	89,020	99,363	113,931	113,279	130,650	152,624	169,427
Texas	632,891	722,495	809,781	891,926	1,014,256	1,123,798	1,215,523	1,278,734
Mountain	586,898	666,287	725,759	803,902	885,912	998,476	1,085,661	1,180,477
Arizona	136,835	160,678	181,263	199,178	223,834	261,384	284,128	299,733
Colorado	158,785	175,760	186,699	206,287	226,555	249,958	260,587	285,736
Idaho	20,861	23,729	24,779	30,789	33,191	36,570	41,437	46,896
Montana	24,327	26,438	29,425	32,069	32,450	34,980	38,149	44,598
Nevada	24,315	29,535	34,254	40,034	45,585	53,780	66,742	71,425
New Mexico	104,988	118,569	132,145	129,087	138,189	151,927	170,139	189,179
Utah	100,712	112,915	120,878	146,029	164,828	187,076	201,470	212,731
Wyoming	16,075	18,663	17,316	20,429	23,310	22,831	23,009	30,181
Pacific	1,651,495	1,838,812	2,030,817	2,226,572	2,411,001	2,628,868	2,816,333	3,089,104
Alaska	42,584	45,008	47,432	49,856	58,701	65,571	67,432	67,881
California	1,230,895	1,379,262	1,554,787	1,722,075	1,845,555	2,003,043	2,141,728	2,338,478
Hawaii	51,025	57,383	57,345	64,278	70,733	76,525	78,166	80,258
Oregon	114,151	124,195	135,326	148,309	161,127	171,550	179,340	203,893
Washington	209,840	232,964	235,927	242,054	276,885	312,169	349,667	398,594
Outlying Areas	31,194	35,077	37,315	38,995	41,941	44,071	46,410	46,541

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-24. Federally financed R&D expenditures at doctorate-granting institutions, by geographic division and State: fiscal years 1985-92

[Dollars in thousands]

Division and State	1985	1986	1987	1988	1989	1990	1991	1992
Total	5,973,212	6,611,548	7,239,800	8,075,545	8,840,244	9,468,328	10,045,329	10,875,392
New England	702,600	754,047	808,738	884,476	944,086	981,113	1,029,002	1,096,507
Connecticut	139,748	145,583	155,717	173,912	187,212	190,388	197,120	208,889
Maine	10,653	8,584	7,787	7,048	8,288	9,046	10,062	8,975
Massachusetts	463,575	504,837	536,999	580,783	621,789	649,104	678,511	724,121
New Hampshire	26,445	29,929	34,633	39,077	41,816	44,590	52,833	60,382
Rhode Island	43,222	45,266	51,313	58,117	56,446	57,430	59,616	63,383
Vermont	18,957	19,848	22,289	25,539	28,535	30,555	30,860	32,757
Middle Atlantic	1,007,362	1,127,381	1,239,246	1,353,642	1,439,677	1,550,940	1,616,775	1,766,060
New Jersey	75,392	82,681	95,294	105,738	117,237	133,959	147,644	162,818
New York	629,477	702,863	758,040	820,489	853,447	901,887	916,892	987,652
Pennsylvania	302,493	341,837	385,912	427,415	468,993	515,094	552,239	615,590
East North Central	814,107	889,277	976,921	1,095,494	1,178,005	1,233,380	1,317,195	1,445,126
Illinois	240,113	258,845	293,929	315,809	338,082	352,786	361,461	394,505
Indiana	97,004	106,979	111,413	130,777	136,040	134,953	143,761	153,981
Michigan	175,186	188,863	207,729	242,766	263,506	276,078	309,592	339,328
Ohio	161,058	177,598	193,615	217,622	242,559	260,537	284,791	319,575
Wisconsin	140,746	156,992	170,235	188,520	197,818	209,026	217,590	237,737
West North Central	314,103	354,914	390,239	431,767	482,532	514,812	566,841	604,742
Iowa	64,133	69,932	76,915	87,855	103,360	113,268	123,858	133,612
Kansas	31,088	35,552	37,386	42,402	44,292	43,478	43,913	53,150
Minnesota	87,776	100,308	109,003	119,789	132,880	143,810	164,887	165,971
Missouri	92,544	102,592	113,146	124,552	139,677	152,398	165,099	180,743
Nebraska	24,670	28,679	33,275	35,041	36,761	34,169	40,597	38,600
North Dakota	11,628	12,729	15,385	16,285	19,396	20,815	21,570	24,572
South Dakota	2,264	5,122	5,129	5,843	6,166	6,874	6,917	8,094
South Atlantic	1,023,173	1,154,933	1,292,844	1,448,374	1,683,716	1,785,625	1,909,043	2,039,435
Delaware	10,626	12,578	13,662	13,708	17,083	17,588	20,053	21,629
District of Columbia	49,497	53,933	62,968	70,850	84,274	86,292	86,793	94,107
Florida	107,813	124,032	129,474	151,012	200,742	223,232	220,683	225,080
Georgia	116,718	137,242	151,367	180,475	210,248	218,498	238,032	256,701
Maryland	441,845	497,348	576,698	617,993	705,963	724,468	784,584	825,739
North Carolina	156,591	177,301	195,177	229,191	261,898	276,795	303,921	332,927
South Carolina	29,857	31,963	34,350	39,759	41,627	45,718	54,045	59,688
Virginia	97,874	107,005	116,137	129,450	144,544	170,128	180,453	195,221
West Virginia	12,352	13,531	13,011	15,936	17,339	22,906	20,479	28,383
East South Central	168,120	194,280	224,722	272,072	307,847	343,574	364,394	402,812
Alabama	60,558	69,993	85,382	104,259	114,892	124,648	126,582	136,885
Kentucky	19,241	24,963	30,778	33,162	32,983	38,249	38,386	47,095
Mississippi	20,741	23,740	24,532	28,158	35,747	43,724	52,853	54,512
Tennessee	67,580	75,584	84,030	106,493	124,245	136,953	146,573	164,320
West South Central	412,922	452,919	495,789	561,514	604,636	659,861	712,402	768,317
Arkansas	11,551	12,386	12,257	14,039	14,213	17,486	20,178	22,083
Louisiana	41,677	47,497	54,367	60,983	69,219	83,213	98,880	89,089
Oklahoma	30,420	24,290	25,880	31,391	33,067	37,020	42,806	46,486
Texas	329,274	368,747	403,285	455,121	488,137	522,143	550,558	610,679
Mountain	361,132	401,339	421,787	477,080	522,768	567,650	630,168	684,332
Arizona	65,463	76,615	80,955	94,630	105,367	122,259	131,627	143,240
Colorado	112,167	125,715	136,003	152,091	167,043	179,978	188,134	203,402
Idaho	13,963	9,328	8,988	11,198	12,586	14,361	15,681	17,343
Montana	9,163	9,082	11,299	13,635	11,552	12,520	13,801	18,487
Nevada	14,241	16,574	18,563	22,751	26,587	33,969	38,221	35,599
New Mexico	68,166	76,334	75,923	73,835	78,777	85,747	94,309	110,587
Utah	70,517	78,370	81,355	97,808	109,053	126,819	137,613	142,396
Wyoming	7,452	9,321	8,701	11,136	13,804	12,207	12,782	13,298
Pacific	1,163,973	1,284,346	1,370,484	1,528,784	1,682,869	1,788,960	1,874,134	2,042,898
Alaska	17,691	19,607	21,523	23,441	28,659	31,898	34,335	32,068
California	876,737	973,999	1,066,099	1,195,035	1,291,332	1,374,698	1,432,712	1,542,897
Hawaii	34,886	35,322	34,472	38,560	40,574	42,665	44,857	47,884
Oregon	68,262	73,360	81,832	90,128	99,141	107,466	108,849	124,198
Washington	166,397	182,058	166,458	181,622	208,160	230,237	253,381	295,053
Outlying Areas	15,720	18,112	19,030	22,342	24,118	24,413	25,375	25,163

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-25. State and local government-financed R&D expenditures at doctorate-granting institutions, by geographic division and State: fiscal years 1985-92

[Dollars in thousands]

Division and State	1985	1986	1987	1988	1989	1990	1991	1992
Total	738,306	900,213	1,006,365	1,089,489	1,202,264	1,299,259	1,449,347	1,464,412
New England	16,936	26,436	27,186	32,948	32,965	31,743	33,906	35,107
Connecticut	3,602	4,361	2,495	4,013	5,430	5,262	5,996	6,187
Maine	1,246	796	315	543	584	908	2,197	1,320
Massachusetts	7,001	14,419	18,390	20,672	18,529	14,080	13,201	14,461
New Hampshire	2,680	3,384	2,045	2,536	2,646	3,985	4,375	5,175
Rhode Island	833	1,547	2,136	2,886	3,276	5,119	5,278	5,434
Vermont	1,574	1,929	1,805	2,298	2,500	2,389	2,859	2,530
Middle Atlantic	72,300	94,597	114,397	123,477	145,804	151,717	145,092	139,494
New Jersey	16,637	28,093	37,489	36,815	45,150	46,278	43,361	41,882
New York	41,952	47,093	53,349	61,084	68,369	74,287	75,291	75,320
Pennsylvania	13,711	19,411	23,559	25,578	32,285	31,152	26,440	22,292
East North Central	115,799	139,210	161,540	181,083	192,219	199,653	232,924	229,115
Illinois	23,793	29,068	30,610	29,329	33,881	38,023	52,573	52,643
Indiana	12,155	17,478	15,772	16,813	18,911	19,449	20,347	20,271
Michigan	23,940	25,976	30,320	33,471	35,983	36,747	42,539	39,907
Ohio	15,304	20,650	35,038	47,437	48,072	46,349	53,079	50,177
Wisconsin	40,607	46,038	49,800	54,033	55,372	59,085	64,386	66,117
West North Central	97,797	110,032	120,367	117,197	134,798	155,629	179,472	174,054
Iowa	13,387	13,655	16,653	20,495	24,839	29,500	34,147	31,006
Kansas	21,031	19,721	20,031	21,092	24,159	25,523	28,967	30,467
Minnesota	19,439	31,819	37,287	39,297	42,542	47,437	53,614	49,720
Missouri	10,758	11,397	11,753	13,050	14,509	18,469	19,061	17,703
Nebraska	14,670	15,988	16,123	17,468	22,926	27,860	35,817	37,523
North Dakota	12,835	13,254	13,731	713	918	1,061	1,327	1,085
South Dakota	5,677	4,198	4,789	5,082	4,905	5,779	6,539	6,550
South Atlantic	152,372	182,030	212,643	235,919	262,378	289,755	308,287	297,188
Delaware	767	1,645	1,995	2,456	2,603	3,139	4,024	4,702
District of Columbia	353	289	484	264	480	465	463	1,428
Florida	7,639	9,994	13,889	19,498	25,655	33,305	36,736	31,775
Georgia	24,394	33,372	39,621	40,161	40,141	42,638	43,222	39,835
Maryland	34,130	38,724	50,425	56,630	64,063	72,022	81,956	82,288
North Carolina	48,193	48,926	54,897	58,048	61,259	64,923	71,990	69,901
South Carolina	11,057	14,598	14,061	15,594	17,421	17,384	16,858	15,480
Virginia	24,512	33,695	36,400	42,198	49,501	54,680	51,474	49,472
West Virginia	1,327	787	871	1,070	1,255	1,199	1,564	2,307
East South Central	60,216	77,429	72,100	82,729	77,310	83,683	87,202	78,882
Alabama	15,461	22,412	16,449	21,263	18,339	25,752	27,267	26,313
Kentucky	11,278	11,588	10,841	13,169	7,113	6,684	6,122	5,086
Mississippi	16,799	21,445	16,775	19,396	20,493	20,953	20,886	18,187
Tennessee	16,678	21,984	28,035	28,901	31,365	30,294	32,927	29,296
West South Central	109,800	131,001	136,685	152,372	181,811	193,867	228,737	245,200
Arkansas	7,787	9,390	9,352	9,701	12,186	11,826	13,958	15,441
Louisiana	31,592	32,218	31,850	38,556	40,758	43,700	62,167	64,885
Oklahoma	2,788	2,663	3,463	4,670	5,062	7,665	13,593	19,578
Texas	67,633	86,730	92,020	99,445	123,805	130,676	139,019	145,296
Mountain	49,591	59,572	67,797	65,804	70,875	72,077	75,145	75,354
Arizona	7,671	8,024	8,965	5,486	7,949	7,318	7,945	7,299
Colorado	6,301	6,762	6,771	9,334	10,370	11,637	13,033	13,333
Idaho	1,885	6,187	8,314	10,507	8,112	8,156	8,604	10,681
Montana	6,726	7,719	7,325	6,649	7,919	7,885	8,884	10,285
Nevada	1,610	1,516	1,973	3,463	2,682	3,200	2,608	3,109
New Mexico	14,928	17,331	17,908	13,912	14,612	14,776	15,467	15,121
Utah	9,613	10,869	13,412	15,290	17,183	17,049	16,756	12,874
Wyoming	857	1,164	1,129	1,163	1,539	2,056	1,848	2,652
Pacific	54,088	69,645	83,092	89,471	97,242	113,755	150,414	181,878
Alaska	3,117	3,182	2,999	1,847	2,101	2,205	1,926	3,680
California	15,260	23,762	36,570	41,429	43,459	52,021	84,089	111,168
Hawaii	16,296	18,771	19,317	21,469	24,759	27,487	27,321	26,775
Oregon	16,928	18,423	18,645	19,399	20,860	22,568	25,727	27,244
Washington	2,487	5,507	5,561	5,327	6,063	9,474	11,351	13,011
Outlying Areas	9,407	10,261	10,558	8,489	7,062	7,380	8,168	8,140

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-26. Industry-financed R&D expenditures at doctorate-granting institutions, by geographic division and State: fiscal years 1985-92

[Dollars in thousands]

Division and State	1985	1986	1987	1988	1989	1990	1991	1992
Total	550,054	687,729	776,012	857,246	977,449	1,108,995	1,185,191	1,258,036
New England	66,590	74,813	86,493	96,433	107,101	115,753	123,632	125,380
Connecticut	6,307	5,892	9,298	9,974	11,630	13,402	16,121	15,273
Maine	1,559	2,856	2,051	2,823	4,002	4,663	4,719	3,545
Massachusetts	51,182	56,556	64,806	69,455	78,727	86,122	90,905	94,639
New Hampshire	1,554	1,578	2,081	2,397	2,951	3,715	3,997	4,451
Rhode Island	3,375	4,600	5,380	8,645	6,305	4,378	3,709	3,135
Vermont	2,613	3,331	2,877	3,139	3,486	3,473	4,181	4,337
Middle Atlantic	102,207	128,816	140,199	155,187	178,060	193,773	203,844	225,341
New Jersey	6,019	9,617	11,780	14,227	16,421	17,318	19,494	25,972
New York	48,139	57,616	62,173	62,748	69,932	77,390	84,153	87,927
Pennsylvania	48,049	61,583	66,246	78,212	91,707	99,065	100,197	111,442
East North Central	76,684	85,009	99,851	112,578	147,578	162,037	169,656	168,266
Illinois	16,141	19,692	23,791	29,173	38,990	44,812	49,583	43,574
Indiana	14,884	14,967	17,203	16,244	18,419	18,165	19,726	21,165
Michigan	19,382	21,174	25,146	26,063	36,310	44,694	43,684	44,903
Ohio	17,048	18,916	22,265	26,940	37,591	37,385	37,948	39,876
Wisconsin	9,229	10,260	11,446	14,158	16,268	16,961	18,715	18,748
West North Central	37,430	47,236	52,740	61,163	69,373	78,235	81,592	85,547
Iowa	4,687	4,749	6,212	9,488	14,711	12,354	14,372	21,563
Kansas	2,492	3,798	5,433	5,648	5,187	7,613	7,292	8,302
Minnesota	8,135	11,157	11,056	10,670	12,389	18,086	19,270	17,537
Missouri	15,587	18,691	19,325	23,494	25,151	28,082	30,195	27,152
Nebraska	3,615	5,336	6,664	8,585	9,098	8,875	7,845	8,529
North Dakota	2,298	3,072	3,578	2,742	2,521	2,845	2,308	2,056
South Dakota	618	433	472	536	316	380	310	408
South Atlantic	101,166	118,794	134,972	157,281	179,092	213,514	241,549	257,011
Delaware	2,809	3,551	3,659	3,558	4,073	4,397	4,732	5,075
District of Columbia	4,397	3,558	4,192	6,504	7,924	8,017	7,279	8,113
Florida	18,525	20,472	20,334	18,019	20,660	28,440	35,690	35,077
Georgia	26,179	30,596	34,196	34,521	35,635	37,343	39,882	42,067
Maryland	15,139	18,757	25,803	28,909	35,603	42,640	39,915	44,211
North Carolina	17,062	21,564	23,825	36,628	41,375	43,372	55,079	63,625
South Carolina	4,385	5,908	6,184	8,693	7,906	12,931	15,903	19,081
Virginia	12,076	13,484	15,895	19,672	21,953	26,292	31,899	34,187
West Virginia	594	904	884	777	3,963	10,082	11,170	5,595
East South Central	24,728	31,424	33,670	38,224	39,564	45,847	52,160	57,060
Alabama	8,915	10,923	10,916	12,703	16,242	18,662	20,348	21,620
Kentucky	4,768	8,173	8,715	4,591	7,516	8,123	10,569	12,800
Mississippi	2,772	3,084	4,282	5,050	5,439	8,314	8,892	9,141
Tennessee	8,273	9,244	11,757	15,880	10,367	10,748	12,351	13,499
West South Central	51,957	55,261	63,964	75,186	81,558	96,387	108,715	117,231
Arkansas	2,372	3,068	2,829	3,865	4,123	4,064	4,514	5,381
Louisiana	6,048	6,253	7,154	8,068	8,193	10,168	15,678	17,757
Oklahoma	6,541	7,083	7,078	7,855	5,667	6,872	8,559	10,170
Texas	36,996	38,857	46,903	55,378	63,575	75,283	79,964	83,923
Mountain	51,443	53,966	63,336	59,436	62,089	78,150	80,231	91,108
Arizona	11,985	14,411	17,456	15,196	12,500	18,066	19,519	19,130
Colorado	12,305	8,766	8,728	11,044	14,381	15,992	17,523	20,776
Idaho	2,826	2,787	2,899	3,654	4,199	4,206	5,050	5,147
Montana	2,066	2,717	3,197	3,129	3,242	4,266	4,408	3,230
Nevada	2,718	3,402	3,983	3,563	4,296	4,733	5,323	5,992
New Mexico	12,660	14,770	20,123	15,837	16,433	21,509	19,530	22,460
Utah	5,072	5,334	5,734	5,215	5,503	7,377	6,880	11,532
Wyoming	1,821	1,779	1,216	1,800	1,535	2,001	2,000	2,841
Pacific	37,836	92,355	100,787	101,569	112,812	124,983	123,135	130,076
Alaska	2,878	2,936	3,024	2,672	3,039	4,100	1,547	3,275
California	18,174	53,174	72,260	73,973	82,732	88,222	85,779	90,829
Hawaii	250	508	261	378	799	1,585	856	337
Oregon	6,182	6,983	4,059	4,631	4,849	6,338	6,846	6,734
Washington	10,352	18,754	21,183	19,915	21,393	24,738	28,107	28,901
Outlying Areas	13	55	0	187	222	316	677	1,016

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-27. Institutionally financed R&D expenditures at doctorate-granting institutions, by geographic division and State: fiscal years 1985-92

[Dollars in thousands]

Division and State	1985	1986	1987	1988	1989	1990	1991	1992
Total	1,599,895	1,850,465	2,149,584	2,333,150	2,679,689	2,993,973	3,354,844	3,522,476
New England	78,800	96,768	100,028	111,972	148,711	162,105	183,871	196,137
Connecticut	28,271	41,445	39,761	43,689	56,999	68,927	73,778	78,865
Maine	4,756	5,075	5,740	6,214	6,567	8,253	9,504	8,892
Massachusetts	30,637	35,644	37,790	40,865	58,681	53,644	66,449	67,169
New Hampshire	6,399	6,027	8,114	9,556	9,333	11,500	10,225	11,421
Rhode Island	5,261	5,202	5,293	7,294	11,646	13,237	17,520	22,345
Vermont	3,476	3,375	3,330	4,354	5,485	6,544	6,395	7,445
Middle Atlantic	198,856	234,441	287,472	309,617	362,342	405,712	445,516	462,375
New Jersey	32,665	47,636	55,142	68,835	82,798	103,882	114,157	119,163
New York	112,706	108,719	126,931	149,334	170,046	175,856	189,494	185,836
Pennsylvania	53,485	78,086	85,399	91,448	109,498	125,974	141,865	157,376
East North Central	260,539	290,305	348,489	374,596	415,859	451,668	517,977	535,913
Illinois	90,090	100,387	117,826	134,015	150,694	161,984	177,424	171,466
Indiana	28,640	31,130	37,627	39,938	43,658	52,059	61,425	64,601
Michigan	67,954	81,556	103,830	104,181	116,135	128,581	152,841	163,088
Ohio	42,596	43,712	47,189	54,761	62,068	61,520	73,765	82,022
Wisconsin	31,259	33,520	42,017	41,701	43,304	47,524	52,522	54,756
West North Central	152,896	175,779	184,248	201,626	220,024	252,727	301,243	308,383
Iowa	42,729	47,813	49,868	55,980	60,863	67,626	74,471	71,144
Kansas	21,482	27,639	27,607	27,567	30,204	33,491	39,897	42,537
Minnesota	38,231	37,251	39,371	37,261	43,713	53,399	60,904	61,587
Missouri	31,824	41,496	49,579	57,777	59,615	63,364	67,335	69,361
Nebraska	15,830	18,734	14,893	18,697	20,676	29,856	34,780	38,051
North Dakota	2,573	2,305	2,391	3,705	4,113	4,019	22,336	23,417
South Dakota	227	741	739	639	840	972	1,520	2,286
South Atlantic	251,547	301,304	378,951	405,162	501,537	554,916	613,445	655,613
Delaware	8,296	9,349	10,117	9,894	11,125	11,751	12,724	14,522
District of Columbia	5,648	10,761	11,642	11,614	13,022	10,539	12,718	15,871
Florida	65,799	68,861	98,188	93,228	112,906	122,097	116,339	108,535
Georgia	60,712	81,851	95,827	108,098	126,231	143,645	149,775	159,249
Maryland	36,120	42,215	59,733	73,156	91,736	108,922	150,072	166,264
North Carolina	21,246	22,151	25,757	31,865	41,222	40,761	51,758	65,197
South Carolina	20,750	30,488	37,110	33,793	44,864	50,859	54,011	51,932
Virginia	25,947	27,855	29,841	32,301	45,348	54,213	52,857	61,868
West Virginia	7,029	7,773	10,736	11,213	15,081	12,129	13,191	12,175
East South Central	60,286	75,408	89,485	102,241	112,119	124,680	136,361	135,889
Alabama	12,407	22,205	29,919	33,029	43,635	50,803	51,449	47,114
Kentucky	17,645	22,277	26,545	35,099	30,593	33,258	38,008	39,870
Mississippi	12,139	10,949	8,897	8,737	9,670	9,488	12,132	11,029
Tennessee	18,095	19,977	24,124	25,376	28,221	31,131	34,772	37,676
West South Central	226,529	245,495	276,787	282,395	326,810	391,306	415,228	419,699
Arkansas	5,675	7,875	8,028	7,286	9,521	12,451	12,945	14,321
Louisiana	37,041	38,096	42,639	45,611	47,129	55,010	44,184	51,397
Oklahoma	51,537	51,149	57,472	62,105	60,063	70,398	74,265	76,907
Texas	132,276	148,375	168,648	167,393	210,097	253,447	283,834	277,074
Mountain	101,062	121,587	136,712	158,178	183,797	205,554	243,494	262,969
Arizona	45,202	53,798	61,644	71,898	86,076	98,210	109,028	110,306
Colorado	18,657	21,968	17,682	17,916	17,735	22,465	23,593	21,776
Idaho	1,392	5,331	4,436	5,432	8,148	9,596	11,697	13,232
Montana	6,372	6,920	7,804	8,442	9,534	10,147	10,820	11,545
Nevada	4,909	6,862	8,805	8,995	10,396	10,172	19,675	25,553
New Mexico	6,404	6,711	14,187	16,183	17,860	19,399	28,762	31,320
Utah	12,423	13,750	16,178	23,208	27,822	29,237	33,779	38,330
Wyoming	5,703	6,247	6,176	6,104	6,226	6,328	6,140	10,907
Pacific	263,390	302,869	359,785	379,498	399,893	435,297	487,461	535,469
Alaska	16,973	17,318	17,980	19,229	21,869	23,636	28,246	27,205
California	216,124	241,302	289,804	312,118	321,575	351,652	389,116	427,366
Hawaii	1,695	2,084	2,591	2,975	3,686	3,568	3,391	3,319
Oregon	8,531	10,010	16,007	17,225	16,637	19,013	21,479	30,164
Washington	20,067	32,175	33,623	27,951	36,126	37,428	45,229	47,415
Outlying Areas	5,990	6,509	7,627	7,865	8,597	10,008	10,248	10,229

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-28. All other sources of financed R&D expenditures at doctorate-granting institutions, by geographic division and State: fiscal years 1985-92

[Dollars in thousands]

Division and State	1985	1986	1987	1988	1989	1990	1991	1992
Total	685,640	723,160	817,813	924,107	1,057,415	1,177,675	1,291,635	1,384,391
New England	83,393	87,208	92,869	108,877	123,758	131,881	140,508	152,430
Connecticut	17,000	15,534	23,519	23,370	23,139	24,680	27,920	33,968
Maine	2,407	2,004	1,059	713	533	735	600	481
Massachusetts	56,492	61,922	61,596	78,616	89,795	95,854	99,872	107,315
New Hampshire	2,602	3,412	4,055	4,092	5,426	5,941	7,545	5,983
Rhode Island	3,906	3,120	1,394	601	2,128	2,470	2,325	2,210
Vermont	986	1,216	1,246	1,485	2,737	2,201	2,246	2,473
Middle Atlantic	146,765	164,182	173,795	201,443	226,395	218,433	233,512	240,943
New Jersey	10,763	12,814	14,991	17,656	20,284	24,591	25,246	26,705
New York	95,102	105,118	107,985	131,328	147,464	135,609	150,286	153,906
Pennsylvania	40,900	46,250	50,819	52,459	58,647	58,233	57,980	60,332
East North Central	86,531	105,469	122,841	134,161	147,515	188,845	214,856	247,243
Illinois	22,656	30,999	32,065	37,974	40,911	49,322	56,524	64,729
Indiana	6,300	5,820	6,071	8,041	10,238	16,070	17,249	22,964
Michigan	14,873	24,336	29,555	31,939	35,258	41,307	52,533	63,194
Ohio	25,442	26,727	31,237	35,135	37,055	51,398	54,142	54,606
Wisconsin	17,260	17,587	23,913	21,072	24,053	30,748	34,408	41,750
West North Central	43,787	50,509	53,629	57,539	58,052	71,448	80,314	75,409
Iowa	7,315	10,363	8,091	7,663	5,621	9,724	12,589	11,396
Kansas	4,051	3,869	3,474	2,946	4,014	4,546	4,105	4,556
Minnesota	19,741	21,208	25,664	29,098	27,090	29,314	32,796	22,327
Missouri	10,272	11,759	11,794	13,275	16,057	22,690	24,090	26,296
Nebraska	1,718	2,351	3,513	3,331	4,045	3,611	4,672	8,335
North Dakota	317	480	827	999	1,003	1,226	1,389	1,601
South Dakota	373	479	266	227	222	337	673	898
South Atlantic	59,357	61,752	75,771	81,969	108,874	129,191	144,211	154,578
Delaware	1,107	1,675	2,248	2,407	2,310	3,244	3,163	3,042
District of Columbia	4,797	4,629	6,184	5,619	5,625	6,833	11,145	14,005
Florida	11,048	13,119	16,982	17,176	25,593	26,339	28,606	22,546
Georgia	3,455	7,975	9,989	9,465	12,169	10,783	13,108	15,157
Maryland	14,542	9,586	11,256	19,030	24,481	29,541	31,893	32,898
North Carolina	11,278	11,987	14,163	11,263	14,096	16,009	19,093	19,699
South Carolina	2,719	3,646	4,106	4,321	8,319	10,377	10,387	17,678
Virginia	9,329	7,837	9,661	11,266	14,551	24,353	22,448	24,736
West Virginia	1,082	1,296	1,202	1,422	1,730	1,712	4,368	4,817
East South Central	16,246	18,062	26,001	31,386	39,673	43,618	44,608	44,313
Alabama	6,796	7,877	10,259	9,555	16,456	19,691	20,653	19,552
Kentucky	858	1,551	3,129	5,927	5,813	4,566	4,904	4,793
Mississippi	2,063	2,081	5,396	5,709	7,573	6,512	5,620	5,686
Tennessee	6,529	6,553	7,217	10,195	9,831	12,849	13,431	14,282
West South Central	83,619	96,418	120,011	137,968	156,428	169,397	193,872	201,985
Arkansas	2,666	2,661	3,083	3,084	3,633	3,035	3,486	3,451
Louisiana	9,120	10,136	12,553	12,405	14,733	15,418	14,837	20,486
Oklahoma	5,121	3,835	5,470	7,910	9,420	8,695	13,401	16,286
Texas	66,712	79,786	98,925	114,569	128,642	142,249	162,148	161,762
Mountain	23,670	29,823	38,127	43,402	46,583	55,045	56,623	66,714
Arizona	6,514	7,830	12,243	11,966	11,942	15,531	16,009	19,758
Colorado	9,365	12,549	14,515	15,902	16,717	19,886	20,304	26,449
Idaho	795	96	142	0	147	251	405	493
Montana	0	0	0	214	203	162	236	1,069
Nevada	837	1,181	930	1,262	1,564	1,686	915	1,172
New Mexico	2,840	3,423	4,004	9,320	10,507	10,498	12,071	9,691
Utah	3,087	4,592	4,199	4,510	5,267	6,794	6,442	7,599
Wyoming	242	152	94	226	206	239	239	483
Pacific	142,208	109,597	116,669	127,250	148,195	167,863	181,189	198,783
Alaska	1,925	1,965	1,926	2,667	3,033	3,734	1,378	1,655
California	104,600	77,055	90,254	99,520	116,454	136,452	150,032	166,218
Hawaii	898	718	704	866	915	1,220	1,741	2,143
Oregon	14,248	15,419	14,683	16,928	19,640	16,165	16,439	15,563
Washington	20,537	14,440	9,102	7,239	8,153	10,292	11,599	13,214
Outlying Areas	64	140	100	112	1,942	1,954	1,942	1,993

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
United States, total	18,504,707	10,875,392	1,464,412	1,258,036	3,522,476	1,384,391
Public, total	12,327,678	6,431,753	1,327,754	820,241	2,912,572	835,358
Private, total	6,177,029	4,443,639	136,658	437,795	609,904	549,033
Alabama, total	251,484	136,885	26,313	21,620	47,114	19,552
Public, total	251,484	136,885	26,313	21,620	47,114	19,552
Auburn University	66,773	15,415	23,006	6,807	16,896	4,649
The University of Alabama	22,573	6,877	193	2,240	12,884	379
Univ Alabama Birmingham	117,844	82,392	2,023	8,90[illegible]	9,998	14,524
Univ Alabama Huntsville	32,017	24,432	589	1,963	5,033	0
Univ of South Alabama	12,277	7,769	502	1,703	2,303	0
Alaska, total	67,881	32,066	3,680	3,275	27,205	1,655
Public, total	67,881	32,066	3,680	3,275	27,205	1,655
Univ of Alaska Fairbanks	67,881	32,066	3,680	3,275	27,205	1,655
Arizona, total	299,733	143,240	7,299	19,130	110,306	19,758
Public, total	299,733	143,240	7,299	19,130	110,306	19,758
Arizona State University	69,346	33,148	932	5,790	28,369	1,107
Northern Arizona Univ	8,388	4,180	785	1,048	2,375	0
University of Arizona	221,999	105,912	5,582	12,292	79,562	18,651
Arkansas, total	60,657	22,063	15,441	5,381	14,321	3,451
Public, total	60,657	22,063	15,441	5,381	14,321	3,451
U of Arkansas Med Sci	15,889	9,642	659	1,330	2,684	1,574
Univ of Ark Fayetteville	44,768	12,421	14,782	4,051	11,637	1,877
California, total	2,338,478	1,542,897	111,168	90,829	427,366	166,218
Public, total	1,643,005	1,024,503	101,097	58,997	320,290	140,118
San Diego State Univ	30,683	15,679	6,251	1,865	5,682	1,206
U of California System	0	0	0	0	0	0
US Naval Postgrad School	20,412	20,171	63	113	0	65
Univ of Cal Berkeley	284,545	148,954	36,665	12,553	67,806	18,567
Univ of Cal Davis	209,282	91,318	13,735	6,125	83,030	15,074
Univ of Cal Irvine	89,275	55,331	4,312	3,825	15,035	10,772
Univ of Cal Los Angeles	270,954	180,743	6,120	14,671	38,325	31,095
Univ of Cal Riverside	57,536	17,167	3,005	857	32,884	3,623
Univ of Cal San Diego	282,114	219,843	9,936	7,485	21,742	23,108
Univ of Cal San Francisco	295,784	202,283	17,736	6,573	39,083	30,129
Univ of Cal Santa Barbara	66,007	52,777	1,602	2,447	5,321	3,860
Univ of Cal Santa Cruz	36,413	20,237	1,672	483	11,402	2,619
Private, total	695,473	518,394	10,071	33,832	107,076	26,100
Biola University	0	0	0	0	0	0
Cal Sch Prof Psych-Berkly	0	0	0	0	0	0
Cal Sch Prof Psych-Fresno	875	252	0	0	399	224
Cal Sch Prof Psych-L A	376	50	0	0	251	77
Cal Sch Prof Psych-S D	69	0	0	0	69	0
California Inst of Tech	111,733	99,198	486	3,280	5,319	3,450
Chas R Drew U of Med Sci	7,862	5,949	804	141	396	572
Claremont Univ Ctr & Grad	639	15	158	97	130	239
Col Osteo Med of Pacific	6	0	0	0	6	0
Fielding Institute	0	0	0	0	0	0
Fuller Theological Sem	40	40	0	0	0	0
Loma Linda University	8,028	4,036	200	2,750	434	608
RAND Grad Schl Pol Stdies	0	0	0	0	0	0
Santa Clara University	2,103	459	0	225	1,312	107
Stanford University	367,980	265,687	911	11,810	68,774	20,798
The Wright Institute	0	0	0	0	0	0
US International Univ	0	0	0	0	0	0
Univ of Southern Cal	194,740	141,713	7,512	15,529	29,986	0
University of the Pacific	1,020	995	0	0	0	25

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Colorado, total	285,736	203,402	13,333	20,776	21,776	26,449
Public, total	277,452	196,166	12,863	20,424	21,641	26,358
Colorado School of Mines	12,783	6,348	632	5,542	261	0
Colorado State University	88,132	59,766	10,460	4,213	8,710	4,983
Univ of Northern Colorado	271	158	41	14	58	0
Univ. of Colorado	176,266	129,894	1,730	10,655	12,612	21,375
Private, total	8,284	7,236	470	352	135	91
University of Denver	8,284	7,236	470	352	135	91
Connecticut, total	341,182	206,889	6,187	15,273	78,865	33,968
Public, total	124,010	45,967	4,813	5,831	59,608	7,791
University of Connecticut	124,010	45,967	4,813	5,831	59,608	7,791
Private, total	217,172	160,922	1,374	9,442	19,257	26,177
Wesleyan University	5,603	3,577	467	0	462	1,097
Yale University	211,569	157,345	907	9,442	18,795	25,080
Delaware, total	48,970	21,629	4,702	5,075	14,522	3,042
Public, total	48,970	21,629	4,702	5,075	14,522	3,042
University of Delaware	48,970	21,629	4,702	5,075	14,522	3,042
District of Columbia, total	133,524	94,107	1,428	8,113	15,871	14,005
Private, total	133,524	94,107	1,428	8,113	15,871	14,005
American University	4,330	3,926	31	77	216	80
Catholic Univ of America	7,346	5,388	20	1,544	0	394e
George Washington Univ	39,335	28,158	780	1,181	3,068	6,148
Georgetown University	64,937	42,659	105	4,947	11,387	5,839
Howard University	17,576	13,976	492	364	1,200	1,544
Florida, total	422,993	225,060	31,775	35,077	108,535	22,546
Public, total	316,960	145,529	27,998	24,755	103,440	15,238
Florida A & M University	22,230	18,698	2,241	1,291	0	0
Florida Atlantic Univ	8,021	4,431	1,647	1,943	0	0
Florida State University	50,178	27,849	3,195	598	17,749	987
Univ of Central Florida	27,629	9,151	3,907	3,947	10,624	0
Univ of South Florida	68,713	18,010	5,856	5,127	32,677	7,043
University of Florida	140,189	67,390	11,152	11,849	42,390	7,208
Private, total	106,033	79,531	3,777	10,322	5,095	7,308
Florida Inst of Tech	5,924	2,080	2,092	1,575	177	0
Nova University	1,323	974	111	181	57e	0
University of Miami	98,786	76,477	1,574	8,566	4,861	7,308
Georgia, total	513,009	256,701	39,835	42,067	159,249	15,157
Public, total	376,094	162,025	37,040	32,892	140,984	4,053
Georgia Institute of Tech	180,263	101,295	1,912	23,776	53,280	0
Georgia State University	10,026	4,021	148	347	4,251	1,259
Medical Col of Georgia	21,426	7,747	313	2,090	9,647	1,629
University of Georgia	165,279	48,962	34,667	6,679	73,806	1,165
Private, total	136,915	94,676	2,795	9,175	18,265	11,104
Clark Atlanta University	11,483	9,985	109	181	1,208	0
Emory University	101,398	69,894	2,534	7,465	11,732	9,773
Inst Paper Sci and Tech	7,474	1,317	0	624	4,632	901
Mercer University	8,554	7,325	152	644	433	0
Morehouse School of Med	7,106	6,155	0	261	260	430

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Hawaii, total	80,258	47,684	26,775	337	3,319	2,143
Public, total	80,258	47,684	26,775	337	3,319	2,143
Univ of Hawaii-Manoa	80,258	47,684	26,775	337	3,319	2,143
Idaho, total	46,896	17,343	10,681	5,147	13,232	493
Public, total	46,896	17,343	10,681	5,147	13,232	493
Idaho State University	2,756	742	95	1,083	535	301
University of Idaho	44,140	16,601	10,586	4,064	12,697	192
Illinois, total	726,917	394,505	52,643	43,574	171,466	64,729
Public, total	396,333	191,806	47,465	27,071	105,214	24,777
Illinois State University	3,294	1,470	985	0	37	802
Northern Illinois Univ	10,708	5,384	248	1,458	3,618	0
Southern Ill U-Carbondale	28,094	7,382	6,578	2,004	9,881	2,249
Univ of Ill Chicago	102,267	48,484	5,217	3,539	32,714	12,313
University of Ill Urbana	251,970	129,086	34,437	20,070	58,964	9,413
Private, total	330,584	202,699	5,178	16,503	66,252	39,952
Chicago Col of Osteo Med	1,097	149	0	156	745	47
DePaul University	914	594	0	0	162	158
Illinois Inst of Tech	6,293	4,165	339	1,145	644	0
Loyola Univ - Chicago	30,099	18,071	495	3,442	3,027	5,064
Northwestern University	141,975	69,241	1,724	6,978	45,644	18,388
Rush University	26,184	9,130	811	3,218	8,896	4,129
U Hlth Sci/Chcgo Med Schl	5,899	4,167	0	165	648	919
University of Chicago	118,123	97,182	1,809	1,399	6,486	11,247
Indiana, total	282,982	153,981	20,271	21,165	64,601	22,964
Public, total	260,303	138,923	19,230	16,507	62,679	22,964
Ball State University	1,211	330	104	331	443	3
Indiana State University	1,267	498	0	0	350	419
Indiana University	117,565	69,871	1,190	3,569	28,340	14,595
Purdue University	140,260	68,224	17,936	12,607	33,546	7,947
Private, total	22,679	15,058	1,041	4,658	1,922	0
University of Notre Dame	22,679	15,058	1,041	4,658	1,922	0
Iowa, total	268,721	133,612	31,006	21,563	71,144	11,396
Public, total	268,685	133,612	31,006	21,556	71,130	11,381
Iowa St U of Sci & Tech	132,580	45,144	28,201	8,011	45,002	6,222
Univ of Northern Iowa	687	108	416	0	142	21
University of Iowa	135,418	88,360	2,389	13,545	25,986	5,138
Private, total	36	0	0	7	14	15
Univ Osteo Med & Hlth Sci	36	0	0	7	14	15
Kansas, total	139,012	53,150	30,467	8,302	42,537	4,556
Public, total	139,012	53,150	30,467	8,302	42,537	4,556
Kans St U - Ag & App Sci	57,723	18,583	25,856	2,586	9,067	1,631
University of Kansas	75,004	31,992	2,828	4,877	33,102	2,205
Wichita State University	6,285	2,575	1,783	839	368	720
Kentucky, total	109,644	47,095	5,086	12,800	39,870	4,793
Public, total	109,644	47,095	5,086	12,800	39,870	4,793
University of Kentucky	92,244	39,828	5,022	9,253	33,348	4,793
University of Louisville	17,400	7,267	64	3,547	6,522	0

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Louisiana, total	243,614	89,089	64,885	17,757	51,397	20,486
Public, total	169,045	53,420	62,665	10,281	29,260	13,419
Louisiana State Univ Sys	151,844	48,641	58,305	9,657	22,900	12,341
Louisiana Tech University	3,985	1,660	1,426	624	275	0
Northeast Louisiana Univ	2,401	2,112	289	0	0	0
Univ of Southwestern LA	10,815	1,007	2,645	0	6,085	1,078
Private, total	74,569	35,669	2,220	7,476	22,137	7,067
Tulane University	72,190	33,304	2,220	7,462	22,137	7,067
Xavier University of LA	2,379	2,365	0	14	0	0
Maine, total	23,213	8,975	1,320	3,545	8,892	481
Public, total	23,213	8,975	1,320	3,545	8,892	481
Univ of Maine Orono	23,213	8,975	1,320	3,545	8,892	481
Maryland, total	1,151,400	825,739	82,288	44,211	166,264	32,898
Public, total	415,858	159,043	81,696	30,915	134,862	9,342
U of MD Baltimore County	7,619	4,893	1,363	1,363	0	0
U of MD Center For EES	18,557	4,321	3,935	71	8,924	1,306
U of MD Eastern Shore	3,640	3,096	544	0	0	0
Unif Serv Univ of Hlth Sc	59,171	16,176	0	0	42,995	0
Univ of MD Balt Prof Sch	107,830	48,088	14,844	13,724	23,138	8,036
Univ of MD College Park	219,041	82,469	61,010	15,757	59,805	0
Private, total	735,542	666,696	592	13,296	31,402	23,556
Johns Hopkins Univ	735,542	666,696	592	13,296	31,402	23,556
Massachusetts, total	1,007,705	724,121	14,461	94,639	67,169	107,315
Public, total	139,186	77,712	8,645	12,762	31,890	8,177
Univ of Mass - Amherst	62,990	33,408	4,758	5,466	14,157	5,201
Univ of Mass - Boston	7,974	2,019	2,402	41	1,981	1,531
Univ of Mass - Lowell	14,880	6,872	1,243	3,770	1,550	1,445
Univ of Mass - Worcester	53,342	35,413	242	3,485	14,202	0
Private, total	868,519	646,409	5,816	81,877	35,279	99,138
Boston College	10,400	8,695	52	102	615	936
Boston University	83,701	66,677	599	8,437	0	7,988
Brandeis University	35,229	21,800	180	0	4,576	8,673
Clark University	1,694	1,121	0	0	0	573
Harvard University	253,126	174,632	448e	11,647e	18,259e	48,140
Mass Col Phar/Allied Hlth	156	0	0	156	0	0
Mass Inst of Technology	324,453	237,972	3,444	49,828	7,385	25,824
Northeastern University	15,876	12,841	273	1,444	195	1,123
Smith College	1,481i	312i	0i	0i	384i	785i
Tufts University	50,633	42,112	21	7,668e	810e	22e
Woods Hole Ocngrphic Inst	82,845	74,229	547	992	2,096	4,981
Worcester Poly Institute	8,925	6,018	252	1,603	959	93
Michigan, total	650,400	339,328	39,907	44,903	163,088	63,194
Public, total	648,391	338,912	39,907	43,540	162,900	63,132
Central Michigan Univ	1,715	734	366	173	425	17
Michigan State University	142,308	66,466	25,320	6,304	32,911	11,307
Michigan Tech University	18,179	8,242	1,556	2,946	5,435	0
Oakland University	5,804	3,013	657	692	1,178	266
University of Michigan	393,059	223,452	5,827	24,992	96,183	42,605
Wayne State University	81,127	35,569	5,511	7,486	24,787	7,774
Western Michigan Univ	6,199	1,436	670	947	1,983	1,163
Private, total	2,009	416	0	1,363	188	62
Andrews University	278	96	0	0	118	62
University of Detroit	1,731	318	0	1,363	50	0

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Minnesota, total	317,142	165,971	49,720	17,537	61,587	22,327
Public, total	317,026	165,926	49,720	17,529	61,532	22,319
University of Minnesota	317,026	165,926	49,720	17,529	61,532	22,319
Private, total	116	45	0	8	55	8
Mayo Foundation	116	45	0	8	55	8
Mississippi, total	98,555	54,512	18,187	9,141	11,029	5,686
Public, total	98,555	54,512	18,187	9,141	11,029	5,686
Jackson State University	4,065	3,849	0	216	0	0
Mississippi State Univ	65,754	29,746	17,984	6,920	7,047	4,057
Univ of Sthrn Mississippi	5,375	4,820	104	263	188	0
University of Mississippi	23,361	16,097	99	1,742	3,794	1,629
Missouri, total	321,255	180,743	17,703	27,152	69,361	26,296
Public, total	130,023	38,780	14,340	11,379	56,761	8,763
Univ of Missouri Columbia	97,242	28,047	13,074	7,612	42,441	6,068
Univ of Missouri Kan City	9,869	4,419	506	1,032	3,308	624
Univ of Missouri Rolla	15,619	4,819	544	2,147	6,346	1,763
Univ of Missouri St Louis	4,304	1,495	138	347	2,094	230
Univ of Missouri Sys Off	2,989	0	78	241	2,572	78
Private, total	191,232	141,963	3,363	15,773	12,600	17,533
Kirksville Col Osteo Med	856	392	0	23	175	266
St Louis University	19,932	17,708	352	523	228	1,121
Univ of Health Sciences	105	0	0	35	70	0
Washington University	170,339	123,863	3,011	15,192	12,127	16,146
Montana, total	44,596	18,467	10,285	3,230	11,545	1,069
Public, total	44,596	18,467	10,285	3,230	11,545	1,069
Montana State University	34,419	13,443	8,927	2,983	8,321	745
University of Montana	10,177	5,024	1,358	247	3,224	324
Nebraska, total	131,038	38,600	37,523	8,529	36,051	8,335
Public, total	122,991	35,122	37,392	5,875	36,402	8,200
U of Neb Med Ctr at Omaha	31,564	9,740	4,237	2,163	13,295	2,129
Univ of Nebraska-Lincoln	91,427	25,382	33,155	3,712	23,107	6,071
Private, total	8,047	3,478	131	2,654	1,649	135
Creighton University	8,047	3,478	131	2,654	1,649	135
Nevada, total	71,425	35,599	3,109	5,992	25,553	1,172
Public, total	71,425	35,599	3,109	5,992	25,553	1,172
Desert Research Institute	20,579	11,508	1,191	4,466	3,195	219
Univ of Nevada - Reno	37,546	14,065	1,246	916	20,690	609
Univ of Nevada, Las Vegas	13,300	10,006	672	610	1,668	344
New Hampshire, total	87,412	60,382	5,175	4,451	11,421	5,983
Public, total	33,744	21,591	1,082	1,813	5,648	3,630
Univ of New Hampshire	33,744	21,591	1,082	1,813	5,648	3,630
Private, total	53,668	38,791	4,113	2,638	5,773	2,353
Dartmouth College	53,668	38,791	4,113	2,638	5,773	2,353

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
New Jersey, total	376,540	162,818	41,882	25,972	119,163	26,705
Public, total	267,720	101,495	37,666	15,399	95,617	17,543
N J Inst of Technology	21,126	5,778	6,485	2,173	5,507	1,183
Rutgers the St Univ of NJ	162,089	56,625	25,176	7,889	63,027	9,372
Univ of Med & Dent of N J	84,505	39,092	6,005	5,337	27,083	6,988
Private, total	108,820	61,323	4,216	10,573	23,546	9,162
Fairleigh Dickinson Univ	118	2	14	14	24	64
Princeton University	93,958	55,722	2,119	4,322	22,697	9,098
Seton Hall University	164 i	164 i	0 i	0 i	0 i	0 i
Stevens Institute of Tech	14,580	5,435	2,083	6,237	825	0
New Mexico, total	189,179	110,587	15,121	22,460	31,320	9,691
Public, total	189,179	110,587	15,121	22,460	31,320	9,691
N Mex Inst Mining & Tech	25,208	7,682	2,258	9,616	5,503	149
New Mexico State Univ	83,900	62,872	8,739	3,958	7,306	1,025
University of New Mexico	80,071	40,033	4,124	8,886	18,511	8,517
New York, total	1,490,641	987,652	75,320	87,927	185,836	153,906
Public, total	348,970	205,676	13,541	16,285	72,940	40,528
CUNY Grad Sch & Univ Ctr	3,185	2,811	0	0	42	332
SUNY Col of Env Sci & For	18,456	2,427	752	1,793	12,765	719
SUNY Hlth Sci Ctr - Brkln	37,071	18,458	4,772	637	6,292	6,912
SUNY Hlth Sci Ctr - Syrcs	13,896	9,985	39	532	0	3,340
SUNY St Coll of Optometry	329	160	0	17	82	70
SUNY at Albany	35,856	25,988	820	1,080	5,381	2,587
SUNY at Binghamton	12,843	4,611	882	1,505	3,882	1,963
SUNY at Buffalo	128,428	77,628	4,852	7,831	19,705	18,412
SUNY at Stony Brook	98,906	63,608	1,424	2,890	24,791	6,193
Private, total	1,141,671	781,976	61,779	71,642	112,896	113,378
Adelphi University	355	89	0	0	0	266
Albany Medical College	9,681	6,740	0	12	2,734	195
Alfred University	4,117	403	1,052	1,988	561	113
CUNY Mt Sinai Sch of Med	75,561	50,853	888	4,642	8,845	10,333
Clarkson University	9,518	4,229	1,060	2,315	1,914	0
Columbia U Teachers Col	401	138	0	0	0	263
Columbia Univ Main Div	199,516	174,777	2,422	6,454	4,017	11,846
Cornell University	299,342	180,361	40,063	13,879	39,636	25,403
Fordham University	1,936	1,468	50	0	0	418e
Hofstra University	211	211	0	0	0	0
Long Island University	217	142	6	7	20	42
New Sch For Soc Research	1,572	376	0	0	0	1,196
New York Inst Technology	3,085 i	0 i	0 i	474 i	2,611 i	0 i
New York Medical College	16,799	13,061	204	1,429	0	2,105
New York University	122,399	87,081	1,321	4,588	10,750	18,659
Polytechnic University	9,273	5,600	1,110	1,972	500	91e
Rensselaer Polytech Inst	50,769	24,313	4,453	12,181	3,627	6,215
Rockefeller University	75,102	37,832	87	4,623	17,085	15,475
St John's University (NY)	1,069	743	30 i	296 i	0 i	0 i
Syracuse University	32,145	14,715	2,416	5,195	6,393	3,426
Union College (NY)	1,415	279	70	872	142	52
University of Rochester	139,992	110,413	6,547	9,085	2,679	11,268
Yeshiva University	87,196	68,152	0	1,650	11,382	6,012
North Carolina, total	551,349	332,927	69,901	63,625	65,197	19,699
Public, total	312,752	169,680	66,549	25,256	49,198	2,069
East Carolina University	6,087	3,605	992	1,470	0	0
N C State Univ at Raleigh	143,008	50,501	48,364	20,342	21,838	1,963
Univ of N C at Greensboro	2,128	1,800	32	148	44	106
Univ of NC at Chapel Hill	161,549	113,774	17,161	3,298	27,316	0
Private, total	238,597	163,247	3,352	38,369	15,999	17,630
Duke University	188,678	125,742	3,047	31,977	13,503	14,409
Wake Forest University	49,919	37,505	305	6,392	2,496e	3,221

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
North Dakota, total	52,731	24,572	1,085	2,056	23,417	1,601
Public, total	52,731	24,572	1,085	2,056	23,417	1,601
North Dakota State Univ	34,466	8,677	956	1,193	22,255	1,385
Univ of North Dakota	18,265	15,895	129	863	1,162	216
Ohio, total	546,256	319,575	50,177	39,876	82,022	54,606
Public, total	386,864	201,174	47,572	28,718	69,665	39,735
Air Force Inst of Tech	3,813	3,813	0	0	0	0
Bowling Green State Univ	3,430	1,496	367	216	1,351	0
Cleveland State Univ	10,939	5,042	2,517	605	2,775	0
Kent State University	11,655	5,808	1,879	94	3,357	519
Med Col of Ohio at Toledo	10,905	7,083	1,270	661	1,201	690
Miami University (Ohio)	3,972	1,918	282	558	1,214	0
NE Ohio Univ Med School	1,747	936	31	29	513	238
Ohio State University	203,291	97,940	31,958	13,994	28,260	31,141
Ohio University	14,811	4,856	3,151	1,779	4,314	711
University of Akron	14,437	3,950	2,303	4,651	3,404	129e
University of Cincinnati	83,176	56,375	2,202	3,942	16,795	3,862
University of Toledo	7,287	3,304	246	1,798	1,245	694
Wright State University	17,401	8,655	1,368	391	5,236	1,751
Private, total	159,392	118,401	2,605	11,158	12,357	14,871
Antioch University	92	87	0	0	5	0
Case Western Reserve U	118,391	83,387	2,541	6,851	10,803	14,809
Union Institute	0	0	0	0	0	0
University of Dayton	40,909	34,927	64	4,307	1,549	62
Oklahoma, total	169,427	46,486	19,578	10,170	76,907	16,286
Public, total	163,384	45,117	18,510	7,451	76,027	16,279
Oklahoma State University	71,238	15,384	7,544	3,132	44,028	1,150
University of Oklahoma	92,146	29,733	10,966	4,319	31,999	15,129
Private, total	6,043	1,369	1,068	2,719	880	7
Oral Roberts University	82	0	0	70	12	0
University of Tulsa	5,961	1,369	1,068	2,649	868	7
Oregon, total	203,893	124,198	27,244	6,734	30,164	15,553
Public, total	191,561	117,060	26,479	4,490	28,674	14,858
Oregon Hlth Sciences Univ	49,313	33,548	39	1,043	11,984	2,699
Oregon State University	107,573	59,739	25,377	3,115	9,711	9,631
Portland State University	4,433	2,771	442	104	767	349
University of Oregon	30,242	21,002	621	228	6,212	2,179
Private, total	12,332	7,138	765	2,244	1,490	695
Oregon Grad Inst Sci/Tech	12,332	7,138	765	2,244	1,490	695
Pennsylvania, total	967,032	615,590	22,292	111,442	167,376	50,332
Public, total	489,476	299,823	9,862	54,721	108,863	16,207
Pennsylvania State Univ	278,305	151,877	7,808	42,693	75,883	44
Temple University	53,921	26,869	691	4,155	19,172	3,034
University of Pittsburgh	157,250	121,077	1,363	7,873	13,808	13,129
Private, total	477,556	315,767	12,430	56,721	48,513	44,125
Bryn Mawr College	1,746	801	20	0	925	0
Carnegie-Mellon Univ	110,571	69,848	5,833	19,003	5,974	9,913
Drexel University	23,184	9,869	1,340	3,429	8,546	0
Duquesne University	340	202	0	16	75	47
Hahnemann University	17,332	9,797	136	352	4,969	2,078
Lehigh University	31,822	17,426	1,631	7,467	4,346	952
Phila Col Osteopathic Med	506	314	26	58	73	35
Phila Col of Pharm & Sci	907	279	0	628	0	0
The Medical Col of Penna	25,835	17,914	154	2,938	4,322	507
Thomas Jefferson Univ	41,329	28,861	0	12,468	0	0

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Pennsylvania, continued:						
Private, continued:						
Univ of Pennsylvania	222,424	159,574	3,140	10,034	19,083	30,593
Villanova University	1,560	882	150	328	200	0
Rhode Island, total	96,507	63,383	5,434	3,135	22,345	2,210
Public, total	40,842	25,480	5,277	1,253	8,716	116
Univ of Rhode Island	40,842e	25,480e	5,277l	1,253l	8,716l	116l
Private, total	55,665	37,903	157	1,882	13,629	2,094
Brown University	55,585	37,856	157	1,882	13,596	2,094
Providence College	80	47	0	0	33	0
South Carolina, total	163,839	59,686	15,480	19,061	51,932	17,678
Public, total	163,839	59,686	15,480	19,061	51,932	17,678
Clemson University	77,579	18,771	14,397	7,174	30,016	7,221
Med Univ of S. Carolina	31,900	17,174	0	2,868	4,410	7,448
Univ of South Carolina	54,360	23,743	1,083	9,019	17,506	3,009
South Dakota, total	18,236	8,094	6,550	408	2,286	898
Public, total	18,236	8,094	6,550	408	2,286	898
S Dak Sch Mines & Tech	3,693	2,362	578	54	671	28
South Dakota State Univ	12,692	4,751	5,647	354	1,204	736
Univ of South Dakota	1,851	981	325	0	411	134
Tennessee, total	259,073	164,320	29,296	13,499	37,676	14,282
Public, total	155,031	78,053	28,885	9,594	29,402	9,097
East Tennessee State Univ	1,750	886	48	6	86	724
Memphis State University	12,169	3,586	3,264	12	4,647	660
Tenn Technological Univ	9,872	1,534	4,224	1,097	3,017	0
Univ. Of Tennessee System	131,240	72,047	21,349	8,479	21,652	7,713
Private, total	104,042	86,267	411	3,905	8,274	5,185
Meharry Medical College	7,258	6,673	0	111	136	338
Vanderbilt University	96,784	79,594	411	3,794	8,138	4,847
Texas, total	1,278,734	610,679	145,296	83,923	277,074	161,762
Public, total	1,068,248	494,614	140,108	72,361	254,547	106,618
East Texas State Univ	176	0	22	154	0	0
Lamar University	2,984	2,046	720	198	0	0
Sam Houston State Univ	1,072	220	367	206	279	0
Stephen F Austin St Univ	1,490	292	670	199	77	252e
Texas A & M University	305,390	112,918	79,530	28,675	75,947	8,320
Texas Col of Osteo Med	3,920	2,804	321	392	0	403
Texas Tech University	36,869	11,121	10,748	4,815	8,565	1,622
Texas Woman's University	1,394	583	576	235	0	0
U Tex Hlth Sci Ctr Houstn	56,497	36,478	1,354	5,144	5,667	7,854
U Tex Hlth Sci Ctr S Anto	65,179	41,048	5,467	5,268	9,217	4,179
U Tex Med Br Galveston	57,672	24,281	7,027	3,978	15,374	7,012
U of Houston	44,957	21,881	12,224	1,595	6,484	2,773
UT MD Anderson Cancer Ct	112,121	34,492	0	0	57,963	19,646
UT SW Medical Ctr-Dallas	102,263	61,499	153	10,874	6,925	22,812
Univ of North Texas	10,701	1,932	3,372	1,712	887	2,798
Univ of Tex at Arlington	13,898	3,296	1,070	2,351	7,179	0
Univ of Texas at Austin	228,545	124,614	12,840	4,814	58,189	28,088
Univ of Texas at Dallas	12,995	7,676	1,896	1,157	1,607	659
Univ of Texas at El Paso	10,147	7,433	1,953	594	167	0
Private, total	210,486	116,065	5,188	11,562	22,527	55,144
Baylor Col of Dentistry	745	437	0	215	90	3
Baylor Col of Medicine	167,998	85,734	2,177	6,630	20,656	52,801
Baylor University	1,469	635	111	98	237	390

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Texas, continued:						
Private, continued:						
Rice University	29,424	21,356	2,482	4,147	0	1,439
Southern Methodist Univ	7,722	5,138	418	176	1,479	511
Texas Christian Univ	3,128	2,765	0	298	65	0
Utah, total	212,731	142,396	12,874	11,532	38,330	7,599
Public, total	198,262	134,290	11,967	9,291	35,244	7,470
University of Utah	108,486	79,386	197	4,124	18,592	6,187
Utah State University	89,776	54,904	11,770	5,167	16,652	1,283
Private, total	14,469	8,106	907	2,241	3,086	129
Brigham Young University	14,469	8,106	907	2,241	3,086	129
Vermont, total	49,542	32,757	2,530	4,337	7,445	2,473
Public, total	49,542	32,757	2,530	4,337	7,445	2,473
U of VT & State Agr Coll	49,542	32,757	2,530	4,337	7,445	2,473
Virginia, total	365,484	195,221	49,472	34,187	61,868	24,736
Public, total	351,965	186,255	49,472	32,044	61,730	20,464
College of William & Mary	18,890	8,209	1,193	630	8,195	663
George Mason University	11,930	8,439	166	1,489	749	1,087
Old Dominion University	10,859	6,284	3,564	1,011	0	0
University of Virginia	110,103	68,151	6,276	8,296	14,290	13,090
VA Polytech Inst & St U	130,994	51,281	36,076	14,333	25,997	3,307
Virginia Commonwith Univ	69,189	45,891	2,197	6,285	12,499	2,317
Private, total	13,519	6,966	0	2,143	138	4,272
Eastern VA Medical School	11,238	6,966	0	0	0	4,272
Institute of Textile Tech	2,281	0	0	2,143	138	0
Washington, total	398,594	296,053	13,011	28,901	47,415	13,214
Public, total	398,594	296,053	13,011	28,901	47,415	13,214
University of Washington	313,514	257,840	7,882	26,442	16,364	4,986
Washington State Univ	85,080	38,213	5,129	2,459	31,051	8,228
West Virginia, total	53,257	28,363	2,307	5,595	12,175	4,817
Public, total	53,257	28,363	2,307	5,595	12,175	4,817
Marshall University	663	623	0	10	30	0
W VA Sch Osteopathic Med	112	0	0	0	112	0
West Virginia University	52,482	27,740	2,307	5,585	12,033	4,817
Wisconsin, total	419,108	237,737	66,117	18,748	54,756	41,750
Public, total	371,273	207,457	64,795	13,801	51,349	34,071
Univ of Wis-Madison	352,706	199,816	58,454	12,912	48,852	32,672
Univ of Wis-Milwaukee	18,567	7,641	6,341	889	2,497	1,399
Private, total	47,835	30,280	1,322	5,147	3,407	7,679
Marquette University	4,256	2,612	95	463	236	850
Medical College of Wis	43,579	27,668	1,227	4,684	3,171	6,829
Wyoming, total	30,181	13,298	2,652	2,841	10,907	483
Public, total	30,181	13,298	2,652	2,841	10,907	483
University of Wyoming	30,181	13,298	2,652	2,841	10,907	483

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at doctorate-granting institutions, by State, control, and source of funds: fiscal year 1992

[Dollars in thousands]

State, control, and institution	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Puerto Rico, total	46,541	25,163	8,140	1,016	10,229	1,993
Public, total	43,441	22,422	8,051	1,016	10,017	1,935
Univ of P R-Mayaguez	25,238	9,117	7,499	1,008	6,579	1,035
Univ of P R-Med Sci Cmpus	13,685	10,679	526	0	1,602	878
Univ. of Puerto Rico	4,518	2,626	26	8	1,836	22
Private, total	3,100	2,741	89	0	212	58
Catholic U of PR	91	68	0	0	23	0
Ponce School of Medicine	1,715	1,573	70	0	50	22
U Ctrl Del Caribe Eac Med	1,294	1,100	19	0	139	36

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY:
c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-30. R&D expenditures at doctorate-granting institutions, by geographic division, State, and science and engineering field: fiscal year 1992

[Dollars in thousands]

Division and State	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Total	18,504,707	3,005,261	1,989,131	1,204,787	781,464	10,119,362	315,495	791,760	297,447
New England	1,605,561	249,686	205,724	162,246	65,983	770,314	35,846	92,436	23,326
Connecticut	341,182	30,724	25,192	9,675	10,423	242,967	10,646	10,036	1,519
Maine	23,213	3,368	666	4,448	70	12,443	283	1,935	0
Massachusetts	1,007,705	190,261	166,638	104,907	44,494	389,558	19,136	73,361	19,350
New Hampshire	87,412	9,753	3,334	19,432	1,527	49,914	565	1,997	890
Rhode Island	96,507	14,644	8,970	23,545	9,234	29,899	4,337	5,053	825
Vermont	49,542	936	924	239	235	45,533	879	54	742
Middle Atlantic	2,834,213	467,083	253,337	103,328	164,911	1,636,865	64,452	117,433	26,804
New Jersey	376,540	65,035	48,455	24,054	21,945	171,076	12,891	25,458	7,626
New York	1,490,641	192,946	137,990	56,957	74,966	952,652	29,712	42,878	2,540
Pennsylvania	967,032	209,102	66,892	22,317	68,000	513,137	21,849	49,097	16,638
East North Central	2,625,663	440,908	305,283	95,758	98,180	1,369,401	56,622	153,343	106,168
Illinois	726,917	92,141	92,567	33,296	36,282	359,524	15,569	26,873	70,665
Indiana	282,982	45,852	57,725	4,119	9,262	143,111	6,130	10,933	5,850
Michigan	650,400	102,371	61,542	24,868	27,737	341,978	17,411	56,903	17,590
Ohio	546,256	149,537	54,431	8,674	15,855	275,492	6,423	28,207	7,637
Wisconsin	419,108	51,007	39,018	24,801	9,044	249,296	11,089	30,427	4,426
West North Central	1,248,135	142,684	82,782	37,473	43,213	865,424	13,306	44,004	19,249
Iowa	268,721	44,184	25,584	881	12,664	166,354	1,962	12,974	4,118
Kansas	139,012	18,433	11,525	8,064	1,486	84,675	1,758	1,961	11,110
Minnesota	317,142	26,053	16,190	11,830	18,391	224,337	6,341	14,000	0
Missouri	321,255	25,297	18,261	5,227	8,638	249,892	2,176	9,351	2,413
Nebraska	131,038	12,141	7,401	6,941	1,178	100,109	725	2,300	243
North Dakota	52,731	14,336	3,103	1,617	848	29,051	269	2,656	851
South Dakota	18,236	2,240	718	2,913	8	11,006	75	762	514
South Atlantic	3,403,825	668,930	381,410	217,300	190,936	1,734,633	42,574	139,168	28,871
Delaware	48,970	12,198	7,906	7,746	2,317	11,595	509	6,699	0
District of Columbia	133,524	12,208	14,520	870	7,612	84,049	1,758	12,250	257
Florida	422,993	53,673	48,461	53,096	9,976	228,070	10,820	11,891	7,006
Georgia	513,009	140,221	39,972	13,792	29,518	246,014	9,147	33,700	645
Maryland	1,151,400	274,986	198,994	70,197	100,353	461,107	4,880	24,272	16,611
North Carolina	551,349	52,312	27,166	18,980	16,970	402,375	7,616	25,752	178
South Carolina	163,839	34,138	11,147	12,585	5,400	84,743	2,264	11,228	2,334
Virginia	365,484	79,382	30,749	34,648	12,550	190,437	5,475	11,170	1,073
West Virginia	53,257	9,812	2,495	5,386	6,240	26,246	105	2,206	767
East South Central	718,756	128,255	56,015	23,032	17,906	450,086	8,169	22,237	13,056
Alabama	251,484	43,249	21,924	5,182	5,342	166,447	2,082	4,758	2,500
Kentucky	109,644	17,926	3,406	602	1,035	78,755	314	2,970	4,636
Mississippi	98,555	21,271	11,168	2,125	700	53,779	353	4,254	4,905
Tennessee	259,073	45,809	19,517	15,123	10,829	151,105	5,420	10,255	1,015
West South Central	1,752,432	292,418	149,520	137,159	51,839	1,011,887	17,461	70,461	21,687
Arkansas	60,657	7,981	4,039	1,111	902	42,701	559	2,476	888
Louisiana	243,614	33,874	14,214	18,269	7,305	149,884	1,901	15,941	2,226
Oklahoma	169,427	32,222	13,120	10,855	5,979	79,963	3,544	18,244	5,500
Texas	1,278,734	218,341	118,147	106,924	37,653	739,339	11,457	33,800	13,073
Mountain	1,180,477	263,910	150,396	138,079	31,756	489,993	23,270	51,888	31,185
Arizona	299,733	41,400	75,301	30,061	8,102	116,898	5,572	17,322	5,077
Colorado	285,736	47,161	35,592	41,425	6,193	130,114	12,545	12,366	340
Idaho	46,996	8,518	2,167	2,707	148	31,013	46	1,822	475
Montana	44,596	5,723	4,114	699	1,137	29,038	9	2,703	1,173
Nevada	71,425	7,400	1,875	26,339	1,520	19,797	128	5,617	8,749
New Mexico	189,179	90,308	8,849	16,021	4,527	54,136	1,590	9,330	4,418
Utah	212,731	59,568	20,502	15,085	8,840	95,010	3,089	2,416	8,221
Wyoming	30,181	3,832	1,996	5,742	1,289	13,987	291	312	2,732
Pacific	3,089,104	350,109	403,343	289,445	116,518	1,749,674	53,731	99,281	27,003
Alaska	67,881	3,347	13,380	31,109	88	16,880	0	3,077	0
California	2,338,478	303,531	325,920	150,819	98,855	1,335,246	42,859	69,820	11,428
Hawaii	80,258	1,715	22,477	17,406	924	28,153	295	3,473	5,815
Oregon	203,893	15,541	20,366	30,065	6,221	120,300	4,005	5,904	1,491
Washington	398,594	25,975	21,200	60,046	10,430	249,095	6,572	17,007	8,269
Outlying Areas	46,541	1,278	1,321	967	222	41,082	64	1,509	98

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
United States, total	18,504,707	3,005,261	1,989,131	1,204,787	781,464	10,119,362	315,495	791,760	297,447
Public, total	12,327,678	1,987,833	1,244,957	933,796	411,595	6,727,995	217,701	579,314	224,487
Private, total	6,177,029	1,017,428	744,174	270,991	369,869	3,391,367	97,794	212,446	72,960
Alabama, total	251,484	43,249	21,924	5,182	5,342	166,447	2,082	4,758	2,500
Public, total	251,484	43,249	21,924	5,182	5,342	166,447	2,082	4,758	2,500
Auburn University	66,773	18,156	4,408	233	640	40,989	134	415	1,798
The University of Alabama	22,573	7,707	5,326	1,519	850	2,711	791	3,504	165
Univ Alabama Birmingham	117,844	4,039	561	450	251	111,432	887	224	0
Univ Alabama Huntsville	32,017	13,206	11,444	2,644	3,571	526	0	104	522
Univ of South Alabama	12,277	141	185	336	30	10,789	270	511	15
Alaska, total	67,881	3,347	13,380	31,109	88	16,880	0	3,077	0
Public, total	67,881	3,347	13,380	31,109	88	16,880	0	3,077	0
Univ of Alaska Fairbanks	67,881	3,347	13,380	31,109	88	16,880	0	3,077	0
Arizona, total	299,733	41,400	75,301	30,061	8,102	116,898	5,572	17,322	5,077
Public, total	299,733	41,400	75,301	30,061	8,102	116,898	5,572	17,322	5,077
Arizona State University	69,346	21,491	15,546	8,830	2,628	7,291	2,947	7,702	2,911
Northern Arizona Univ	8,388	370	520	923	216	4,420	647	1,128	164
University of Arizona	221,999	19,539	59,235	20,308	5,258	105,187	1,978	8,492	2,002
Arkansas, total	60,657	7,981	4,039	1,111	902	42,701	559	2,476	888
Public, total	60,657	7,981	4,039	1,111	902	42,701	559	2,476	888
U of Arkansas Med Sci	15,889	0	0	0	0	15,889	0	0	0
Univ of Ark Fayetteville	44,768	7,981	4,039	1,111	902	26,812	559	2,476	888
California, total	2,338,478	303,531	325,920	150,819	98,855	1,335,246	42,859	69,820	11,428
Public, total	1,643,005	148,917	193,814	118,087	44,102	1,043,105	26,409	58,051	10,520
San Diego State Univ	30,683	3,619	1,351	492	2,191	13,414	3,208	1,341	5,067
U of California System	0	0	0	0	0	0	0	0	0
US Naval Postgrad School	20,412	6,232	2,174	3,231	4,920	0	0	2,743	1,112
Univ of Cal Berkeley	284,545	62,178	61,408	5,259	6,943	118,846	7,088	19,053	3,770
Univ of Cal Davis	209,282	12,364	8,670	943	771	183,504	677	2,353	0
Univ of Cal Irvine	89,275	6,101	14,095	130	4,185	59,902	5	4,286	571
Univ of Cal Los Angeles	270,954	28,471	25,369	13,151	7,716	170,979	8,225	17,043	0
Univ of Cal Riverside	57,536	132	4,178	1,344	762	49,488	774	858	0
Univ of Cal San Diego	282,114	6,173	44,711	73,193	10,799	141,979	2,914	2,345	0
Univ of Cal San Francisco	295,784	0	0	0	0	295,784	0	0	0
Univ of Cal Santa Barbara	66,007	23,647	15,649	10,488	4,505	2,736	2,861	6,121	0
Univ of Cal Santa Cruz	36,413	0	16,209	9,856	1,310	6,473	657	1,908	0
Private, total	695,473	154,614	132,106	32,732	54,753	292,141	16,450	11,769	908
Biola University	0	0	0	0	0	0	0	0	0
Cal Sch Prof Psych-Berkly	0	0	0	0	0	0	0	0	0
Cal Sch Prof Psych-Fresno	875	0	0	0	0	0	875	0	0
Cal Sch Prof Psych-L A	378	0	0	0	0	0	378	0	0
Cal Sch Prof Psych-S D	69	0	0	0	0	0	69	0	0
California Inst of Tech	111,733	19,203	47,840	13,114	5,529	24,954	0	430	663
Chas R Drew U of Med Sci	7,862	0	0	0	0	7,862	0	0	0
Claremont Univ Ctr & Grad	639	0	0	0	83	0	274	282	0
Col Osteo Med of Pacific	6	0	0	0	0	6	0	0	0
Fielding Institute	0	0	0	0	0	0	0	0	0
Fuller Theological Sem	40	0	0	0	0	0	40	0	0
Loma Linda University	8,028	0	0	0	0	8,028	0	0	0
RAND Grad Schl Pol Stdies	0	0	0	0	0	0	0	0	0
Santa Clara University	2,103	1,027	352	0	45	380	7	292	0
Stanford University	367,980	107,500	75,680	6,882	13,347	155,678	3,698	5,195	0
The Wright Institute	0	0	0	0	0	0	0	0	0
US International Univ	0	0	0	0	0	0	0	0	0
Univ of Southern Cal	194,740	26,816	8,200	12,736	35,749	95,233	10,191	5,570	245
University of the Pacific	1,020	68	34	0	0	0	918	0	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Colorado, total	285,736	47,161	35,592	41,425	6,193	130,114	12,545	12,366	340
Public, total	277,452	46,659	32,269	41,417	6,181	129,320	9,620	11,646	340
Colorado School of Mines	12,783	8,320	1,469	1,810	736	0	0	108	340
Colorado State University	88,132	15,625	6,241	10,882	1,337	44,617	2,868	6,562	0
Univ of Northern Colorado	271	0	38	0	0	205	0	28	0
Univ. of Colorado	176,266	22,714	24,521	28,725	4,108	84,498	6,752	4,948	0
Private, total	8,284	502	3,323	8	12	794	2,925	720	0
University of Denver	8,284	502	3,323	8	12	794	2,925	720	0
Connecticut, total	341,182	30,724	25,192	9,675	10,423	242,967	10,646	10,036	1,519
Public, total	124,010	23,024	3,242	7,300	3,691	73,136	5,754	6,344	1,519
University of Connecticut	124,010	23,024	3,242	7,300	3,691	73,136	5,754	6,344	1,519
Private, total	217,172	7,700	21,950	2,375	6,732	169,831	4,892	3,692	0
Wesleyan University	5,603	0	2,243	66	911	2,041	220	122	0
Yale University	211,569	7,700	19,707	2,309	5,821	167,790	4,672	3,570	0
Delaware, total	48,970	12,198	7,906	7,746	2,317	11,595	509	6,699	0
Public, total	48,970	12,198	7,906	7,746	2,317	11,595	509	6,699	0
University of Delaware	48,970	12,198	7,906	7,746	2,317	11,595	509	6,699	0
District of Columbia, total	133,524	12,208	14,520	870	7,612	84,049	1,758	12,250	257
Private, total	133,524	12,208	14,520	870	7,612	84,049	1,758	12,250	257
American University	4,330	0	1,381	0	181	1,280	197	1,291	0
Catholic Univ of America	7,346	1,255	4,751	0	1	447	503	389	0
George Washington Univ	39,335	6,637	1,240	23	5,965	17,910	530	7,025	5
Georgetown University	64,937	0	5,426	846	1,162	54,878	81	2,414	130
Howard University	17,576	4,316	1,722	1	303	9,534	447	1,131	122
Florida, total	422,993	53,673	48,461	53,096	9,976	228,070	10,820	11,891	7,006
Public, total	316,960	50,377	46,453	30,755	9,074	154,689	9,397	9,314	6,901
Florida A & M University	22,230	3,223	2,203	0	89	16,698	5	12	0
Florida Atlantic Univ	8,021	4,658	353	0	1,056	406	1,268	280	0
Florida State University	50,178	677	23,119	10,288	2,222	7,470	2,151	4,251	0
Univ of Central Florida	27,629	4,885	7,909	7,107	716	688	579	326	5,419
Univ of South Florida	68,713	12,458	2,009	7,867	111	42,200	3,242	809	17
University of Florida	140,189	24,476	10,860	5,493	4,880	87,227	2,152	3,636	1,465
Private, total	106,033	3,296	2,008	22,341	902	73,381	1,423	2,577	105
Florida Inst of Tech	5,924	1,600	732	1,392	521	1,566	86	0	27
Nova University	1,323	0	0	1,109	0	0	151	23	40
University of Miami	98,786	1,696	1,276	19,840	381	71,815	1,186	2,554	38
Georgia, total	513,009	140,221	39,972	13,792	29,518	246,014	9,147	33,700	645
Public, total	376,994	126,590	28,274	13,670	27,048	143,302	8,221	29,244	645
Georgia Institute of Tech	180,263	122,215	18,392	7,128	20,471	2,687	1,463	7,736	171
Georgia State University	10,026	0	2,381	290	534	2,436	2,521	1,390	474
Medical Col of Georgia	21,426	0	0	0	0	21,426	0	0	0
University of Georgia	165,279	4,375	7,501	6,252	6,043	116,753	4,237	20,118	0
Private, total	136,015	13,631	11,698	122	2,470	102,712	926	4,456	0
Clark Atlanta University	11,483	1,312	3,519	119	1,810	4,482	0	241	0
Emory University	101,398	0	6,574	3	217	89,463	926	4,215	0
Inst Paper Sci and Tech	7,474	4,962	1,385	0	443	684	0	0	0
Mercer University	8,554	7,357	220	0	0	977	0	0	0
Morehouse School of Med	7,106	0	0	0	0	7,106	0	0	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Hawaii, total	80,258	1,715	22,477	17,406	924	28,153	295	3,473	5,815
Public, total	80,258	1,715	22,477	17,406	924	28,153	295	3,473	5,815
Univ of Hawaii-Manoa	80,258	1,715	22,477	17,406	924	28,153	295	3,473	5,815
Idaho, total	46,896	8,518	2,167	2,707	148	31,013	46	1,822	475
Public, total	46,896	8,518	2,167	2,707	148	31,013	46	1,822	475
Idaho State University	2,756	230	163	119	2	1,586	0	181	475
University of Idaho	44,140	8,288	2,004	2,588	146	29,427	46	1,641	0
Illinois, total	726,917	92,141	92,567	33,296	36,282	359,524	15,569	26,873	70,665
Public, total	396,333	67,517	51,611	29,135	26,730	150,561	8,925	21,539	40,315
Illinois State University	3,294	0	239	10	107	968	42	1,928	0
Northern Illinois Univ	10,708	679	2,003	527	487	3,530	438	3,044	0
Southern Ill U-Carbondale	28,094	4,999	1,829	449	1,904	12,708	399	1,447	4,359
Univ of Ill Chicago	102,267	8,795	7,805	1,179	2,969	75,258	1,757	3,879	825
University of Ill Urbana	251,970	53,044	39,935	26,970	21,263	58,097	6,289	11,241	35,131
Private, total	330,584	24,624	40,956	4,161	9,552	208,963	6,644	5,334	30,350
Chicago Col of Osteo Med	1,097	0	0	0	0	1,097	0	0	0
DePaul University	914	0	0	0	45	43	703	123	0
Illinois Inst of Tech	6,293	4,575	925	270	210	27	286	0	0
Loyola Univ - Chicago	30,099	0	472	0	1,087	27,683	243	611	3
Northwestern University	141,975	20,049	11,692	735	4,948	70,979	1,536	1,689	30,347
Rush University	26,184	0	0	0	0	24,000	2,184	0	0
U Hlth Sci/Chgo Med Schl	5,899	0	0	0	0	5,746	153	0	0
University of Chicago	118,123	0	27,867	3,156	3,262	79,388	1,539	2,911	0
Indiana, total	282,982	45,852	57,725	4,119	9,262	143,111	6,130	10,933	5,850
Public, total	260,303	39,211	46,019	3,948	8,798	139,966	5,878	10,787	5,696
Ball State University	1,211	165	304	48	136	471	41	46	0
Indiana State University	1,267	99	171	79	14	489	22	88	305
Indiana University	117,565	998	29,730	1,666	2,110	69,349	3,907	4,588	5,217
Purdue University	140,260	37,949	15,814	2,155	6,538	69,657	1,908	6,065	174
Private, total	22,679	6,641	11,706	171	464	3,145	252	146	154
University of Notre Dame	22,679	6,641	11,706	171	464	3,145	252	146	154
Iowa, total	268,721	44,184	25,584	881	12,664	166,354	1,962	12,974	4,118
Public, total	268,685	44,184	25,584	881	12,664	166,318	1,962	12,974	4,118
Iowa St U of Sci & Tech	132,580	31,512	4,623	448	10,859	71,224	911	9,046	3,959
Univ of Northern Iowa	687	458	12	14	0	126	0	77	0
University of Iowa	135,418	12,214	20,949	421	1,805	94,968	1,051	3,851	159
Private, total	36	0	0	0	0	36	0	0	0
Univ Osteo Med & Hlth Sci	36	0	0	0	0	36	0	0	0
Kansas, total	139,012	18,433	11,525	8,084	1,486	84,675	1,758	1,961	11,110
Public, total	139,012	18,433	11,525	8,084	1,486	84,675	1,758	1,961	11,110
Kans St U - Ag & App Sci	57,723	8,397	3,831	252	982	41,541	321	1,395	1,004
University of Kansas	75,004	5,027	7,354	7,812	280	42,582	1,437	406	10,106
Wichita State University	6,285	5,009	340	0	224	552	0	160	0
Kentucky, total	109,644	17,926	3,406	602	1,035	78,755	314	2,970	4,636
Public, total	109,644	17,926	3,406	602	1,035	78,755	314	2,970	4,636
University of Kentucky	92,244	16,601	2,204	203	961	65,787	264	1,588	4,636
University of Louisville	17,400	1,325	1,202	399	74	12,968	50	1,382	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and Institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Louisiana, total	243,614	33,874	14,214	18,269	7,305	149,884	1,901	15,941	2,226
Public, total	169,045	27,192	11,323	17,997	6,558	94,978	1,189	8,086	1,722
Louisiana State Univ Sys	151,844	22,443	10,795	17,877	2,198	90,969	993	5,515	1,054
Louisiana Tech University	3,985	2,928	1	0	0	1,056	0	0	0
Northeast Louisiana Univ	2,401	0	0	8	0	442	38	1,913	0
Univ of Southwestern LA	10,815	1,821	527	112	4,360	2,511	158	658	668
Private, total	74,569	6,682	2,891	272	747	54,906	712	7,855	504
Tulane University	72,190	6,682	2,224	272	747	53,194	712	7,855	504
Xavier University of LA	2,379	0	667	0	0	1,712	0	0	0
Maine, total	23,213	3,368	666	4,448	70	12,443	283	1,935	0
Public, total	23,213	3,368	666	4,448	70	12,443	283	1,935	0
Univ of Maine Orono	23,213	3,368	666	4,448	70	12,443	283	1,935	0
Maryland, total	1,151,400	274,986	198,994	70,197	100,353	461,107	4,880	24,272	16,611
Public, total	415,658	49,604	68,935	29,115	13,533	234,860	3,833	15,978	0
U of MD Baltimore County	7,619	1,798	1,989	0	737	1,731	339	1,025	0
U of MD Center For EES	18,557	0	0	18,557	0	0	0	0	0
U of MD Eastern Shore	3,640	0	136	0	0	3,504	0	0	0
Unif Serv Univ of Hlth Sc	59,171	0	0	0	0	59,171	0	0	0
Univ of MD Balt Prof Sch	107,830	0	0	0	0	107,830	0	0	0
Univ of MD College Park	219,041	47,806	66,810	10,558	12,796	62,624	3,494	14,953	0
Private, total	735,542	225,382	130,059	41,082	86,820	226,247	1,047	8,294	16,611
Johns Hopkins Univ	735,542	225,382	130,059	41,082	86,820	226,247	1,047	8,294	16,611
Massachusetts, total	1,007,705	190,261	166,638	104,907	44,494	389,558	19,136	73,361	19,350
Public, total	139,186	15,084	20,192	7,254	10,026	73,617	3,252	5,738	4,023
Univ of Mass - Amherst	62,990	10,479	16,122	6,158	9,517	16,490	2,916	467	841
Univ of Mass - Boston	7,974	0	285	991	27	1,069	331	5,271	0
Univ of Mass - Lowell	14,880	4,605	3,785	105	482	2,716	5	0	3,182
Univ of Mass - Worcester	53,342	0	0	0	0	53,342	0	0	0
Private, total	868,519	175,177	146,446	97,653	34,468	315,941	15,884	67,623	15,327
Boston College	10,400	0	2,605	515	6,036	823	229	192	0
Boston University	83,701	5,579	10,394	177	2,907	58,315	381	1,629	4,319
Brandeis University	35,229	0	3,348	0	1,078	16,177	1,453	13,173	0
Clark University	1,694	0	736	450	49	79	340	40	0
Harvard University	253,126	2,695	27,740	9,839	2,726	157,253	3,609	43,787	5,477
Mass Col Phar/Allied Hlth	156	0	0	0	0	156	0	0	0
Mass Inst of Technology	324,453	140,989	95,935	13,069	16,406	38,101	8,018	6,467	5,488
Northeastern University	15,876	5,847	3,269	0	1,897	3,441	904	518	0
Smith College	1,481	0	200	199	129	322	168	463	0
Tufts University	50,633	2,088	1,631	3,688	124	40,966	782	1,354	0
Woods Hole Ocngrphic Inst	82,845	13,129	0	69,716	0	0	0	0	0
Worcester Poly Institute	8,925	4,870	588	0	3,116	308	0	0	43
Michigan, total	650,400	102,371	61,542	24,868	27,737	341,978	17,411	56,903	17,590
Public, total	648,391	101,161	61,334	24,866	27,736	341,748	17,293	56,737	17,516
Central Michigan Univ	1,715	116	513	209	306	410	16	145	0
Michigan State University	142,308	16,382	23,511	1,967	538	81,787	3,293	7,420	7,410
Michigan Tech University	18,179	11,827	1,724	580	174	2,815	0	919	140
Oakland University	5,804	743	550	0	348	3,642	219	128	174
University of Michigan	393,059	64,901	23,872	20,533	24,477	195,922	11,439	44,451	7,464
Wayne State University	81,127	5,758	10,917	0	1,059	56,634	1,876	2,603	2,280
Western Michigan Univ	6,199	1,434	247	1,577	834	538	450	1,071	48
Private, total	2,009	1,210	208	2	1	230	118	166	74
Andrews University	278	6	19	2	1	129	3	118	0
University of Detroit	1,731	1,204	189	0	0	101	115	48	74

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Minnesota, total	317,142	26,053	16,190	11,830	18,391	224,337	6,341	14,000	0
Public, total	317,026	26,053	16,190	11,830	18,391	224,221	6,341	14,000	0
University of Minnesota	317,026	26,053	16,190	11,830	18,391	224,221	6,341	14,000	0
Private, total	116	0	0	0	0	116	0	0	0
Mayo Foundation	116	0	0	0	0	116	0	0	0
Mississippi, total	98,555	21,271	11,168	2,125	700	53,779	353	4,254	4,905
Public, total	98,555	21,271	11,168	2,125	700	53,779	353	4,254	4,905
Jackson State University	4,065	46	872	74	357	2,470	108	138	0
Mississippi State Univ	65,754	18,116	1,852	1,043	175	36,247	2	3,414	4,905
Univ of Sthrn Mississippi	5,375	58	3,410	1,008	74	812	3	10	0
University of Mississippi	23,361	3,051	5,034	0	94	14,250	240	692	0
Missouri, total	321,255	25,297	18,261	5,227	8,638	249,892	2,176	9,351	2,413
Public, total	130,023	22,177	11,108	2,294	1,872	80,194	1,622	8,343	2,413
Univ of Missouri Columbia	97,242	10,702	5,101	1,687	374	71,032	1,337	6,538	471
Univ of Missouri Kan City	9,889	0	503	50	921	7,483	0	561	371
Univ of Missouri Rolla	15,619	11,465	2,603	248	343	187	3	57	713
Univ of Missouri St Louis	4,304	0	1,421	0	152	529	269	1,187	746
Univ of Missouri Sys Off	2,969	10	1,480	309	82	963	13	0	112
Private, total	191,232	3,120	7,153	2,933	6,766	169,698	554	1,008	0
Kirksville Col Osteo Med	856	0	0	0	0	856	0	0	0
St Louis University	19,932	0	17	659	34	19,222	0	0	0
Univ of Health Sciences	105	0	0	0	0	105	0	0	0
Washington University	170,339	3,120	7,136	2,274	6,732	149,515	554	1,008	0
Montana, total	44,596	5,723	4,114	699	1,137	29,038	9	2,703	1,173
Public, total	44,596	5,723	4,114	699	1,137	29,038	9	2,703	1,173
Montana State University	34,419	5,723	3,742	457	651	22,634	0	1,212	0
University of Montana	10,177	0	372	242	486	6,404	9	1,491	1,173
Nebraska, total	131,038	12,141	7,401	6,941	1,178	100,109	725	2,300	243
Public, total	122,991	12,141	7,308	6,941	1,178	92,157	725	2,300	243
U of Neb Med Ctr at Omaha	31,564	0	0	0	0	31,564	0	0	0
Univ of Nebraska-Lincoln	91,427	12,141	7,308	6,941	1,178	60,593	725	2,300	243
Private, total	8,047	0	95	0	0	7,952	0	0	0
Creighton University	8,047	0	95	0	0	7,952	0	0	0
Nevada, total	71,425	7,400	1,875	26,339	1,520	19,797	128	5,617	8,749
Public, total	71,425	7,400	1,875	26,339	1,520	19,797	128	5,617	8,749
Desert Research Institute	20,579	0	0	15,397	50	2,552	0	2,580	0
Univ of Nevada - Reno	37,546	4,875	1,184	4,699	31	16,328	115	1,790	8,524
Univ of Nevada, Las Vegas	13,300	2,525	691	6,243	1,439	917	13	1,247	225
New Hampshire, total	87,412	9,753	3,334	19,432	1,527	49,914	565	1,997	890
Public, total	33,744	4,217	1,096	18,339	738	6,844	165	1,848	497
Univ of New Hampshire	33,744	4,217	1,096	18,339	738	6,844	165	1,848	497
Private, total	53,668	5,536	2,238	1,093	789	43,070	400	149	393
Dartmouth College	53,668	5,536	2,238	1,093	789	43,070	400	149	393

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
New Jersey, total	376,540	65,035	48,455	24,054	21,945	171,076	12,891	25,458	7,626
Public, total	267,720	29,941	22,113	16,903	14,219	154,265	7,029	15,624	7,626
N J Inst of Technology	21,126	5,215	1,613	8,396	618	0	0	15	5,269
Rutgers the St Univ of NJ	162,089	24,726	20,500	8,507	13,601	69,760	7,029	15,609	2,357
Univ of Med & Dent of N J	84,505	0	0	0	0	84,505	0	0	0
Private, total	108,820	35,094	26,342	7,151	7,726	16,811	5,862	9,834	0
Fairleigh Dickinson Univ	118	14	14	1	3	12	9	65	0
Princeton University	93,958	21,289	25,628	7,150	7,646	16,684	5,853	9,708	0
Seton Hall University	164	0	49	0	0	115	0	0	0
Stevens Institute of Tech	14,580	13,791	651	0	77	0	0	61	0
New Mexico, total	189,179	90,308	8,849	16,021	4,527	54,136	1,590	9,330	4,418
Public, total	189,179	90,308	8,849	16,021	4,527	54,136	1,590	9,330	4,418
N Mex Inst Mining & Tech	25,208	16,797	2,008	5,891	330	182	0	0	0
New Mexico State Univ	83,900	46,532	2,772	8,631	3,161	20,452	53	1,501	798
University of New Mexico	80,071	26,979	4,069	1,499	1,036	33,502	1,537	7,829	3,620
New York, total	1,490,641	192,946	137,990	56,957	74,966	952,852	29,712	42,878	2,540
Public, total	348,970	40,283	34,119	21,566	13,955	212,796	12,679	12,437	1,135
CUNY Grad Sch & Univ Ctr	3,185	0	0	0	139	1,898	590	378	180
SUNY Col of Env Sci & For	18,456	6,003	1,092	1,846	152	9,189	0	174	0
SUNY Hlth Sci Ctr - Brkln	37,071	0	0	0	0	37,071	0	0	0
SUNY Hlth Sci Ctr - Syrcs	13,896	0	0	0	0	13,896	0	0	0
SUNY St Coll of Optometry	329	0	0	0	0	329	0	0	0
SUNY at Albany	35,856	0	3,012	6,255	816	19,373	3,123	3,277	0
SUNY at Binghamton	12,843	2,098	1,932	977	648	1,803	2,715	2,670	0
SUNY at Buffalo	128,428	28,827	7,503	689	6,723	76,580	4,182	3,808	116
SUNY at Stony Brook	98,906	3,355	20,580	11,799	5,477	52,657	2,069	2,130	839
Private, total	1,141,671	152,663	103,871	35,391	61,011	739,856	17,033	30,441	1,405
Adelphi University	355	0	301	0	0	54	0	0	0
Albany Medical College	9,681	0	0	0	0	9,681	0	0	0
Alfred University	4,117	4,117	0	0	0	0	0	0	0
CUNY Mt Sinai Sch of Med	75,561	0	0	0	0	75,561	0	0	0
Clarkson University	9,518	6,345	2,193	0	445	402	98	0	35
Columbia U Teachers Col	401	0	0	0	0	0	301	100	0
Columbia Univ Main Div	199,516	17,526	16,152	27,480	4,318	127,113	1,938	4,989	0
Cornell University	299,342	43,951	44,587	5,106	27,235	163,950	3,570	10,923	20
Fordham University	1,936	0	113	0	47	657	21	1,098	0
Hofstra University	211	10	0	0	15	146	0	40	0
Long Island University	217	0	26	11	149	24	0	7	0
New Sch For Soc Research	1,572	0	0	0	0	0	347	1,225	0
New York Inst Technology	3,085	743	285	0	1,485	572	0	0	0
New York Medical College	16,799	0	0	0	0	16,799	0	0	0
New York University	122,399	0	4,400	206	10,862	95,774	3,787	6,979	389
Polytechnic University	9,273	6,684	2,438	0	66	0	0	0	85
Rensselaer Polytech Inst	50,799	37,898	7,162	951	2,946	777	145	334	556
Rockefeller University	75,102	0	7,145	0	953	67,004	0	0	0
St John's University (NY)	1,069	0	35	0	0	794	215	5	0
Syracuse University	32,145	5,325	5,378	1,313	10,146	5,362	786	3,800	35
Union College (NY)	1,415	505	164	28	139	343	13	124	99
University of Rochester	139,992	29,559	13,472	294	2,205	87,647	5,812	817	186
Yeshiva University	87,196	0	0	0	0	87,196	0	0	0
North Carolina, total	551,349	52,312	27,166	18,980	16,970	402,375	7,616	25,752	178
Public, total	312,752	44,797	15,082	15,488	14,564	202,192	3,078	17,560	11
East Carolina University	6,067	0	89	996	0	4,556	0	426	0
N C State Univ at Raleigh	143,008	44,797	6,951	6,503	5,332	76,021	360	3,044	0
Univ of N C at Greensboro	2,128	0	30	0	46	1,392	483	166	11
Univ of NC at Chapel Hill	161,549	0	7,992	7,989	9,186	120,223	2,235	13,924	0
Private, total	238,597	7,515	12,104	3,492	2,406	200,183	4,538	8,192	167
Duke University	188,678	7,515	11,358	3,492	2,301	151,282	4,538	8,192	0
Wake Forest University	49,919	0	746	0	105	48,901	0	0	167

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
North Dakota, total	52,731	14,336	3,103	1,617	848	29,051	269	2,656	851
Public, total	52,731	14,336	3,103	1,617	848	29,051	269	2,656	851
North Dakota State Univ	34,466	4,325	2,885	40	848	24,045	262	1,862	199
Univ of North Dakota	18,265	10,011	218	1,577	0	5,006	7	794	652
Ohio, total	546,256	149,537	54,431	8,674	15,855	275,492	6,423	28,207	7,637
Public, total	386,864	88,385	48,477	7,887	13,931	192,645	4,275	23,726	7,538
Air Force Inst of Tech	3,813	1,575	584	65	1,589	0	0	0	0
Bowling Green State Univ	3,430	332	1,053	25	151	823	417	349	280
Cleveland State Univ	10,939	3,957	1,083	1	99	1,135	99	4,565	0
Kent State University	11,655	128	8,320	248	549	791	1,306	298	15
Med Col of Ohio at Toledo	10,905	0	0	0	0	10,905	0	0	0
Miami University (Ohio)	3,972	112i	1,080i	137i	3i	958i	311i	615i	756i
NE Ohio Univ Med School	1,747	0	0	0	0	1,747	0	0	0
Ohio State University	203,291	43,764	16,772	6,728	9,336	106,349	1,004	16,422	2,916
Ohio University	14,811	8,294	1,323	129	63	4,767	75	117	43
University of Akron	14,437	5,414	7,289	118	726	300	151	439	0
University of Cincinnati	83,176	19,056	4,991	144	517	55,123	207	640	2,498
University of Toledo	7,287	3,112	3,220	7	101	401	215	231	0
Wright State University	17,401	2,641	2,762	285	797	9,346	490	50	1,030
Private, total	159,392	61,152	5,954	787	1,924	82,847	2,148	4,481	99
Antioch University	92	0	10	0	0	82	0	0	0
Case Western Reserve U	118,391	25,066	4,828	439	408	82,364	1,107	4,179	0
Union Institute	0	0	0	0	0	0	0	0	0
University of Dayton	40,909	36,086	1,116	348	1,516	401	1,041	302	99
Oklahoma, total	169,427	32,222	13,120	10,855	5,979	79,963	3,544	18,244	5,500
Public, total	163,384	28,201	12,641	10,610	5,636	79,204	3,365	18,227	5,500
Oklahoma State University	71,238	14,335	5,834	1,418	639	38,613	407	6,634	3,358
University of Oklahoma	92,146	13,866	6,807	9,192	4,997	40,591	2,958	11,593	2,142
Private, total	6,043	4,021	479	245	343	759	179	17	0
Oral Roberts University	82	10	70	0	0	2	0	0	0
University of Tulsa	5,961	4,011	409	245	343	757	179	17	0
Oregon, total	203,893	15,541	20,366	30,065	6,221	120,300	4,005	5,904	1,491
Public, total	191,561	12,012	16,659	27,378	3,812	120,300	4,005	5,904	1,491
Oregon Hlth Sciences Univ	49,313	0i	0i	0i	0i	47,684i	1,629i	0i	0i
Oregon State University	107,573	9,169	4,762	24,122	2,404	62,669	141	2,868	1,438
Portland State University	4,433	930	366	376	424	494	61e	1,729	53e
University of Oregon	30,242	1,913	11,531	2,880	984	9,453	2,174	1,307	0
Private, total	12,332	3,529	3,707	2,687	2,409	0	0	0	0
Oregon Grad Inst Sci/Tech	12,332	3,529	3,707	2,687	2,409	0	0	0	0
Pennsylvania, total	967,032	209,102	66,892	22,317	68,000	513,137	21,849	49,097	16,638
Public, total	489,476	129,321	32,507	18,316	6,621	252,204	14,302	24,273	11,932
Pennsylvania State Univ	278,305	119,878	18,737	17,918	4,132	90,125	6,302	9,934	11,279
Temple University	53,921	1,196	1,838	13	661	34,144	5,720	10,325	24
University of Pittsburgh	157,250	8,247	11,932	385	1,828	127,935	2,280	4,014	629
Private, total	477,556	79,781	34,385	4,001	61,379	260,933	7,547	24,824	4,706
Bryn Mawr College	1,746	0	444	158	215	331	145	453	0
Carnegie-Mellon Univ	110,571	27,183	6,484	2,232	51,040	12,957	4,682	4,986	1,007
Drexel University	23,184	13,978	3,301	848	1,546	1,930	327	1,254	0
Duquesne University	340	0	107	0	0	190	0	43	0
Hahnemann University	17,332	0	0	0	0	17,332	0	0	0
Lehigh University	31,822	23,621	5,357	506	837	801	270	430	0
Phila Col Osteopathic Med	506	0	0	0	0	506	0	0	0
Phila Col of Pharm & Sci	907	0	0	0	0	907	0	0	0
The Medical Col of Penna	25,835	0	0	0	0	25,835	0	0	0
Thomas Jefferson Univ	41,329	0	0	0	0	41,329	0	0	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Pennsylvania, continued:									
Private, continued:									
Univ of Pennsylvania	222,424	14,469	18,434	257	7,694	158,321	1,987	17,563	3,699
Villanova University	1,560	530	258	0	47	494	136	95	0
Rhode Island, total	96,507	14,644	8,970	23,545	9,234	29,899	4,337	5,053	825
Public, total	40,842	4,937	1,006	18,439	245	10,203	2,798	2,389	825
Univ of Rhode Island	40,842e	4,937i	1,006i	18,439i	245i	10,203i	2,798i	2,389i	825i
Private, total	55,665	9,707	7,964	5,106	8,989	19,696	1,539	2,664	0
Brown University	55,585	9,707	7,964	5,106	8,989	19,652	1,518	2,649	0
Providence College	80	0	0	0	0	44	21	15	0
South Carolina, total	163,839	34,138	11,147	12,585	5,400	84,743	2,264	11,228	2,334
Public, total	163,839	34,138	11,147	12,585	5,400	84,743	2,264	11,228	2,334
Clemson University	77,579	23,977	4,757	750	3,613	37,240	239	5,575	1,428
Med Univ of S. Carolina	31,900	0	0	0	0	31,900	0	0	0
Univ of South Carolina	54,360	10,161	6,390	11,835	1,787	15,603	2,025	5,653	906
South Dakota, total	18,236	2,240	718	2,913	8	11,006	75	762	514
Public, total	18,236	2,240	718	2,913	8	11,006	75	762	514
S Dak Sch Mines & Tech	3,693	1,370	61	2,007	4	0	0	0	251
South Dakota State Univ	12,692	870	429	902	0	9,900	0	591	0
Univ of South Dakota	1,851	0	228	4	4	1,106	75	171	263
Tennessee, total	259,073	45,809	19,517	15,123	10,829	151,105	5,420	10,255	1,015
Public, total	155,031	37,500	12,854	14,985	10,293	68,821	3,576	6,047	955
East Tennessee State Univ	1,750	0	25	184	0	1,503	0	38	0
Memphis State University	12,169	1,559	355	2,741	230	2,434	3,153	1,697	0
Tenn Technological Univ	9,872	8,372	517	67	37	800	0	79	0
Univ. Of Tennessee System	131,240	27,569	11,957	11,993	10,026	64,084	423	4,233	955
Private, total	104,042	8,309	6,663	138	536	82,284	1,844	4,208	60
Meharry Medical College	7,258	0	0	0	0	7,258	0	0	0
Vanderbilt University	96,784	8,309	6,663	138	536	75,026	1,844	4,208	60
Texas, total	1,278,734	218,341	118,147	106,924	37,653	739,339	11,457	33,800	13,073
Public, total	1,068,248	212,851	106,343	101,074	27,556	586,466	8,703	32,604	12,651
East Texas State Univ	176	0	118	0	1	43	1	13	0
Lamar University	2,964	2,241	188	160	110	114	24	127	0
Sam Houston State Univ	1,072	0	366	1	215	85	2	403	0
Stephen F Austin St Univ	1,490	0	90	18	8	1,355	1	18	0
Texas A & M University	305,390	77,462	18,905	65,732	4,740	122,997	1,501	12,224	3,829
Texas Col of Osteo Med	3,920	0	0	0	0	3,815	0	0	105
Texas Tech University	36,869	8,806	4,251	1,080	939	18,149	187	2,780	677
Texas Woman's University	1,394	0	35	0	20	1,314	17	8	0
U Tex Hlth Sci Ctr Houstn	56,497	0	0	0	0	55,900	0	597	0
U Tex Hlth Sci Ctr S Anto	65,179	0	0	0	0	65,179	0	0	0
U Tex Med Br Galveston	57,672	0	0	0	0	57,672	0	0	0
U of Houston	44,957	25,305	8,291	897	1,168	5,978	2,353	721	244
UT MD Anderson Cancer Ct	112,121	0	3,772	0	2,476	105,873	0	0	0
UT SW Medical Ctr-Dallas	102,263	0	0	0	0	102,263	0	0	0
Univ of North Texas	10,701	370	2,516	1,440	1,312	2,475	354	797	1,437
Univ of Tex at Arlington	13,896	8,285	3,094	514	919	640	174	150	120
Univ of Texas at Austin	228,545	85,430	58,507	28,888	14,354	19,472	2,765	12,890	6,239
Univ of Texas at Dallas	12,996	1,005	7,153	1,403	312	1,888	772	462	0
Univ of Texas at El Paso	10,147	3,947	1,057	941	982	1,254	552	1,414	0
Private, total	210,486	5,490	11,804	5,850	10,097	172,873	2,754	1,196	422
Baylor Col of Dentistry	745	0	0	0	0	745	0	0	0
Baylor Col of Medicine	167,998	0	0	0	0	167,998	0	0	0
Baylor University	1,469	1	1,133	87	121	125	2	0	0
Rice University	29,424	4,566	9,191	2,878	9,319	2,999	372	99	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Texas, continued:									
Private, continued:									
Southern Methodist Univ	7,722	923	829	2,874	655	785	144	1,090	422
Texas Christian Univ	3,128	0	651	11	2	221	2,236	7	0
Utah, total	212,731	59,568	20,502	15,085	8,840	95,010	3,089	2,416	8,221
Public, total	198,262	52,656	17,947	14,872	8,432	92,238	2,935	1,975	7,207
University of Utah	108,486	14,501	11,180	4,229	7,903	69,005	1,172	496	0
Utah State University	89,776	38,155	6,767	10,643	529	23,233	1,763	1,479	7,207
Private, total	14,469	6,912	2,555	213	408	2,772	154	441	1,014
Brigham Young University	14,469	6,912	2,555	213	408	2,772	154	441	1,014
Vermont, total	49,542	936	924	239	235	45,533	879	54	742
Public, total	49,542	936	924	239	235	45,533	879	54	742
U of VT & State Agr Coll	49,542	936	924	239	235	45,533	879	54	742
Virginia, total	365,484	79,382	30,749	34,648	12,550	190,437	5,475	11,170	1,073
Public, total	351,965	77,902	30,405	34,533	12,208	179,199	5,475	11,170	1,073
College of William & Mary	18,890	0	3,885	13,018	725	898	192	172	0
George Mason University	11,930	5,119	1,036	8	3,283	659	525	1,300	0
Old Dominion University	10,859	3,796	1,327	3,424	984	1,015	90	221	0
University of Virginia	110,103	18,988	12,510	6,192	4,192	60,441	2,655	4,052	1,073
VA Polytech Inst & St U	130,994	49,830	9,403	11,891	2,721	51,855	1,463	3,831	0
Virginia Commonwith Univ	69,189	167	2,244	0	303	64,331	550	1,594	0
Private, total	13,519	1,480	344	115	342	11,238	0	0	0
Eastern VA Medical School	11,238	0	0	0	0	11,238	0	0	0
Institute of Textile Tech	2,281	1,480	344	115	342	0	0	0	0
Washington, total	398,594	25,975	21,200	60,046	10,430	249,095	6,572	17,007	8,269
Public, total	398,594	25,975	21,200	60,046	10,430	249,095	6,572	17,007	8,269
University of Washington	313,514	18,352	17,623	59,379	9,824	192,469	6,315	8,115	1,437
Washington State Univ	85,080	7,623	3,577	667	606	56,626	257	8,892	6,832
West Virginia, total	53,257	9,812	2,495	5,386	6,240	26,246	105	2,206	767
Public, total	53,257	9,812	2,495	5,386	6,240	26,246	105	2,206	767
Marshall University	663	0	5	0	0	648	6	4	0
W VA Sch Osteopathic Med	112	0	0	0	0	112	0	0	0
West Virginia University	52,482	9,812	2,490	5,386	6,240	25,486	99	2,202	767
Wisconsin, total	419,108	51,007	39,018	24,801	9,044	249,296	11,089	30,427	4,426
Public, total	371,273	49,555	38,373	24,801	8,833	204,481	10,878	30,330	4,022
Univ of Wis-Madison	352,706	46,312	35,224	21,726	8,426	202,187	10,389	25,441	3,001
Univ of Wis-Milwaukee	18,567	3,243	3,149	3,075	407	2,294	489	4,889	1,021
Private, total	47,835	1,452	645	0	211	44,815	211	97	404
Marquette University	4,256	1,452	645	0	211	1,236	211	97	404
Medical College of Wis	43,579	0	0	0	0	43,579	0	0	0
Wyoming, total	30,181	3,832	1,996	5,742	1,289	13,987	291	312	2,732
Public, total	30,181	3,832	1,996	5,742	1,289	13,987	291	312	2,732
University of Wyoming	30,181	3,832	1,996	5,742	1,289	13,987	291	312	2,732

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at doctorate-granting institutions, by State, control, and science and engineering field: fiscal year 1992

[Dollars in thousands]

State and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Puerto Rico, total	46,541	1,278	1,321	967	222	41,082	64	1,509	98
Public, total	43,441	1,278	1,321	967	222	37,994	64	1,497	98
Univ of P R-Mayaguez	25,238	1,223 i	108 i	967 i	21 i	22,800 i	21 i	0 i	98 i
Univ of P R-Med Sci Cmpus	13,685	0	0	0	0	13,685	0	0	0
Univ. of Puerto Rico	4,518	55	1,213	0	201	1,509	43	1,497	0
Private, total	3,100	0	0	0	0	3,088	0	12	0
Catholic U of PR	91	0	0	0	0	91	0	0	0
Ponce School of Medicine	1,715	0	0	0	0	1,715	0	0	0
U Ctrl Del Caribe Esc Med	1,294	0	0	0	0	1,282	0	12	0

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
Total, all institutions	18,879,705	17,637,627	16,334,400	15,019,003	13,462,796	12,151,935	10,926,948	9,686,420
1 Johns Hopkins Univ 1/	735,542	710,095	668,915	648,395	557,016	510,896	440,844	398,630
2 University of Michigan	393,059	363,582	310,578	280,905	250,169	224,890	187,859	163,713
3 Stanford University	367,980	314,941	299,511	285,994	277,504	240,885	223,162	199,185
4 Univ of Wis-Madison	352,706	326,489	309,841	285,982	271,418	254,493	231,099	208,425
5 Mass Inst of Technology 2/	324,453	318,901	311,767	287,157	270,584	264,416	257,726	242,966
6 University of Minnesota	317,026	331,471	292,046	258,614	236,115	222,381	201,743	173,322
7 University of Washington	313,514	274,423	245,313	221,712	190,735	187,062	186,572	163,962
8 Texas A & M University	305,390	288,005	272,800	250,706	231,161	219,853	207,362e	184,899e
9 Cornell University 2/	299,342	309,535	300,144	286,733	271,659	253,971	225,400	203,226
10 Univ of Cal San Francisco	295,784	268,700	238,278	219,446	193,289	169,436	147,785	131,348
Total, 1st 10 insts.	3,704,796	3,506,142	3,249,193	3,025,644	2,749,650	2,548,283	2,309,552	2,069,676
11 Univ of Cal Berkeley 2/	284,545	258,038	231,061	209,967	186,372	175,273	158,990	149,900
12 Univ of Cal San Diego	282,114	261,422	237,032	216,991	200,472	183,047	161,054	145,550
13 Pennsylvania State Univ	278,305	267,816	256,926	219,930	188,444	165,841	146,270	113,196
14 Univ of Cal Los Angeles	270,954	250,033	246,795	227,828	209,338	188,831	168,158	149,744
15 Harvard University	253,126	229,939	220,812	209,519	190,429	169,074	154,390	138,063
16 University of Ill Urbana	251,970	243,380	225,634	210,590	197,393	188,682	158,947	139,563
17 Univ of Texas at Austin	228,545	237,043	228,203	193,337	172,608	168,931	145,324	126,657
18 Univ of Pennsylvania	222,424	198,221	189,390	173,744	159,218	158,334	152,746	130,397
19 University of Arizona	221,999	213,726	195,633	174,119	155,464	138,726	124,790	105,765
20 Univ of MD College Park	219,041	206,432	166,022	149,510	135,531	126,239	101,650	91,905
Total, 1st 20 insts.	6,217,819	5,872,192	5,446,701	5,011,179	4,544,919	4,211,261	3,781,871	3,360,416
21 Yale University	211,569	193,893	180,706	171,139	162,188	145,818	136,072	117,023
22 Univ of Cal Davis	209,282	200,664	198,075	180,297	154,655	143,798	123,788	114,862
23 Ohio State University	203,291	194,919	178,569	173,485	154,652	123,246	112,823	103,350
24 Columbia Univ Main Div	199,516	194,666	182,769	172,145	160,976	149,904	145,416	136,577
25 Univ of Southern Cal	194,740	175,595	169,102	162,013	150,009	134,995	116,399	97,282
26 Duke University	188,678	164,232	140,708	131,090	113,968	89,556	78,831	68,899
27 Georgia Institute of Tech	180,263	176,729	168,193	174,664	143,051	120,342	105,457	90,445
28 Univ. of Colorado	176,266	160,526	154,723	143,720	128,015	112,276	104,576	93,416
29 Washington University	170,339	160,464	151,249	128,419	117,829	103,419	90,226	80,233
30 Baylor Col of Medicine	167,998	161,084	155,122	134,681	106,814	90,179	68,993	63,197
Total, 1st 30 insts.	8,119,761	7,654,964	7,125,917	6,582,832	5,937,076	5,424,794	4,864,252	4,325,700
31 University of Georgia	165,279	162,992	156,742	145,953	137,892	124,442	111,745	91,253
32 Rutgers the St Univ of NJ	162,089	151,335	137,985	124,574	105,150	94,555	79,894	59,392
33 Univ of NC at Chapel Hill	161,549	142,681	123,113	122,097	107,039	93,754	85,454	75,958
34 University of Pittsburgh	157,250	130,322	117,716	111,265	98,609	84,183	74,059	63,798
35 Louisiana State Univ Sys	151,844	147,626	135,849	122,357	114,698	102,070	91,709	90,280
36 N C State Univ at Raleigh	143,008	142,606	131,133	123,441	110,286	102,647	92,695	87,996
37 Michigan State University	142,308	133,249	126,987	121,456	116,320	111,810	100,861	92,515
38 Northwestern University	141,975	144,809	133,151	118,991	102,755	88,920	80,178	72,337
39 Purdue University	140,260	136,325	130,379	124,323	118,797	107,131	102,126	88,868
40 University of Florida	140,189	140,257	139,678	125,770	107,177	104,245	95,527	91,298
Total, 1st 40 insts.	9,625,512	9,087,166	8,458,650	7,823,059	7,055,599	6,438,551	5,778,500	5,139,391
41 University of Rochester 2/	139,992	131,777	129,011	123,997	114,061	101,598	95,824	86,650
42 University of Iowa	135,418	124,058	115,778	105,900	94,552	79,090	73,596	64,923
43 Iowa St U of Sci & Tech 2/	132,580	134,657	116,270	103,241	86,726	78,351	72,642	67,276
44 Univ. Of Tennessee System	131,240	128,418	116,644	113,187	104,179	91,417	80,156	71,615
45 VA Polytech Inst & St U	130,994	125,256	121,423	104,266	89,955	80,552	75,450	61,966
46 SUNY at Buffalo	128,428	113,441	109,190	100,291	87,635	70,474	64,404	57,045
47 University of Connecticut	124,010	123,794	117,932	109,328	89,630	81,575	74,287	75,155
48 New York University	122,399	112,106	106,511	104,451	100,872	98,924	92,787	83,898
49 Case Western Reserve Univ	118,391	104,199	93,384	86,168	77,303	70,850	57,530e	51,598
50 University of Chicago 2/	118,123	113,289	117,955	109,429	98,541	91,879	88,026	79,929
Total, 1st 50 insts.	10,907,087	10,298,161	9,604,748	8,883,317	7,999,053	7,283,261	6,553,202	5,839,444

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
51 Univ Alabama Birmingham	117,844	113,317	110,603	100,666	85,030	72,692	59,401	47,167
52 Indiana University	117,565	102,461	89,191	81,793	73,526	65,341	59,160	54,796
53 UT MD Anderson Cancer Ctr	112,121	108,988	91,283	85,903	75,642	65,417	63,318	56,137
54 California Inst of Tech 2/	111,733	115,526	105,730	98,731	92,530	86,565	78,776	65,810
55 Carnegie-Mellon Univ 2/	110,571	103,030	100,201	101,635	94,051	83,763	71,920	60,292
56 University of Virginia	110,103	96,733	96,815	81,281	74,572	63,861	57,472	51,653
57 University of Utah	108,486	94,621	89,018	83,340	75,789	68,194	60,478	54,354
58 Univ of MD Balt Prof Sch	107,830	100,163	83,689	75,854	68,787	57,931	36,934	32,097
59 Oregon State University	107,573	96,199	90,688	91,355	88,953	82,786	78,168	74,768
60 Univ of Ill Chicago	102,267	90,520	85,268	83,329	75,922	64,701	54,846	48,734
Total, 1st 60 insts.	12,013,180	11,319,719	10,547,234	9,767,204	8,803,855	7,994,512	7,173,675	6,385,252
61 UT SW Medical Ctr-Dallas	102,263	94,511	85,919	79,920	70,392	62,907	52,619	46,671
62 Emory University	101,398	91,940	82,774	84,713	60,896	58,889	51,115	30,706
63 SUNY at Stony Brook	98,906	90,790	82,236	79,455	79,410	54,850	54,197	47,495
64 University of Miami	98,786	96,979	94,344	90,298	70,783	65,158	64,154	58,035
65 Univ of Missouri Columbia	97,242	98,748	88,181	74,055	66,365	61,212	57,653	50,765
66 Vanderbilt University	96,784	80,759	75,062	65,218	60,591	43,589	37,715	34,180
67 Princeton University 2/	93,958	92,002	91,514	82,914	76,891	65,089	51,789	46,027
68 University of Kentucky	92,244	81,137	74,959	69,532	69,003	55,042	53,770	47,387
69 University of Oklahoma	92,146	79,777	58,645	53,956	50,047	45,350	37,328	42,290
70 Univ of Nebraska-Lincoln	91,427	87,529	77,598	68,281	60,788	56,066	55,158	47,809
Total, 1st 70 insts.	12,978,334	12,211,891	11,358,466	10,495,546	9,469,021	8,562,664	7,689,173	6,836,617
71 Utah State University	89,776	94,167	86,450	69,944	59,273	41,343	42,351	37,526
72 Univ of Cal Irvine	89,275	82,523	78,074	66,806	60,100	51,691	49,979	44,458
73 Colorado State University	88,132	80,474	73,967	64,351	59,369	52,619	49,359	44,171
74 Yeshiva University	87,196	86,721	83,968	74,496	75,383	73,773	70,260	66,656
75 Washington State Univ	85,280	75,244	66,856	55,173	51,319	48,865	46,392	45,878
76 Univ of Med & Dent of N J	84,505	80,787	71,789	54,451	42,027	32,222	30,322	23,521
77 New Mexico State Univ	83,900	78,736	71,288	60,930	61,001	58,672	51,917	46,198
78 Boston University	83,701	74,881	73,651	66,325	61,505	58,299	53,225	44,135
79 University of Cincinnati	83,176	80,598	74,461	69,831	60,479	53,804	44,368	42,709
80 Woods Hole Oceanographic Inst	82,845	76,979e	71,747	74,881	58,700	48,061	43,675	43,132
Total, 1st 80 insts.	13,835,920	13,023,001	12,110,717	11,152,734	10,058,177	9,082,013	8,171,021	7,275,001
81 Wayne State University	81,127	69,997	62,455	59,521	50,509	39,335	33,589	27,941
82 Univ of Hawaii-Manoa	80,258	78,166	76,525	70,733	64,278	57,345	57,383	54,025
83 University of New Mexico	80,071	67,344	57,728	52,970	47,729e	49,764e	49,856	45,581
84 Clemson University	77,579	70,236	66,664	56,699	49,375	46,495	38,963	32,326
85 CUNY Mt Sinai Sch of Med	75,561	66,310	63,752	56,856	49,727	46,137	40,193	37,750
86 Rockefeller University	75,102	74,090	75,245	73,945	68,588	66,760	63,216	59,159
87 University of Kansas	75,004	65,982	61,144	57,111	51,723	50,603	47,853	41,021
88 Tulane University	72,190	71,781	56,407	45,195	42,619	38,393	34,871	28,144
89 Oklahoma State University	71,238	67,492	65,685	53,655	56,636	47,420	45,919	49,094
90 Arizona State University	69,346	63,489	59,849	44,347	39,510	38,763	33,580	28,953
Total, 1st 90 insts.	14,593,396	13,717,888	12,756,171	11,723,766	10,578,871	9,563,028	8,616,444	7,678,995
91 Virginia Commonwith Univ	69,189	65,608	62,730	52,193	42,951	42,329	36,729	35,221
92 Univ of South Florida	68,713	72,948	76,404	60,973	40,396	38,633	11,707	9,186
93 Univ of Alaska Fairbanks	67,881	67,432	65,571	56,701	49,856e	47,432	45,008	42,584
94 Auburn University	66,773	69,913	66,795	53,814	52,737	48,045	47,930	36,279
95 Univ of Cal Santa Barbara	66,007	59,593	59,750	50,067	46,598	42,704	36,516	30,055
96 Mississippi State Univ	65,754	64,335	58,492	53,670	45,005	40,405	43,813	41,376
97 U Tex Hlth Sci Ctr S Anto	65,179	51,768	45,663	42,501	39,673	34,476	33,165	29,845
98 Georgetown University	64,937	60,454	50,867	53,597	44,783	35,981	29,254	27,878
99 Univ of Mass - Amherst	62,990	--	--	--	--	--	--	--
100 Unif Serv Univ of Hlth Sc	59,171	47,096	36,080	27,062	15,991	12,076	12,960	10,536
Total, 1st 100 insts.	15,249,990	14,277,035	13,278,523	12,174,344	10,956,861	9,905,109	8,915,526	7,941,955

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
101 Kans St U - Ag & App Sci	57,723	53,010	50,311	47,302	43,174	40,587	40,708	37,233
102 U Tex Med Brnch Galveston	57,672	45,086	40,610	38,717	33,047	24,351	23,312i	22,273
103 Univ of Cal Riverside	57,536	57,244	54,892	53,213	52,983	51,158	47,881	44,233
104 U Tex Hlth Sci Ctr Houstn	56,497	53,896	45,707	46,860	43,345	35,158	32,564	26,568
105 Brown University	55,585	49,503	46,763	43,564	41,556	38,110	31,906	28,344
106 Univ of South Carolina	54,360	55,091	47,477	40,421	31,836	29,658	28,362	22,765
107 Temple University	53,921	54,921	49,449	45,482	40,941	36,013	32,610	26,668
108 Dartmouth College	53,668	49,384	43,737	38,452	35,563	31,227	26,067i	20,908i
109 Univ of Mass - Worcester	53,342	--	--	--	--	--	--	--
110 West Virginia University	52,482	49,686	46,624	37,569	28,807	25,676	23,376	21,462
Total, 1st 110 insts.	15,802,776	14,744,856	13,704,093	12,565,924	11,308,113	10,217,047	9,202,312	8,192,407
111 Rensselaer Polytech Inst	50,769	50,106	46,880	38,805	36,511	25,176	21,233	19,129
112 Tufts University	50,633	47,748	47,009	50,424	54,225	46,497	40,789i	35,082i
113 Florida State University	50,178	53,811	62,933	55,245	50,679	46,420	44,179	34,969
114 Wake Forest University	49,919	44,214	39,654	37,156	30,568	23,596	20,705i	17,818i
115 U of VT & State Agr Coll	49,542	46,541	45,162	42,743	36,815	31,547	29,699	27,606
116 Oregon Hlth Sciences Univ	49,313	41,661	41,420	35,097	29,509	26,062	21,418	17,785
117 University of Delaware	48,970	44,696	40,119	37,194	32,023	31,681	28,798	23,605
118 U of Houston	44,957	42,292	37,978	34,229	26,803	24,378	22,053	16,011
119 Univ of Ark Fayetteville	44,768	40,831	36,963	32,842	28,104	27,435	28,566	24,536
120 University of Idaho	44,140	39,407	34,936	31,879	30,078	24,070	23,068	20,460
Total, 1st 120 insts.	16,285,965	15,196,163	14,137,147	12,961,538	11,663,428	10,523,909	9,482,820	8,429,408
121 Medical College of Wis	43,579	40,446	34,622	34,951	33,231	30,218	21,356	19,859
122 Thomas Jefferson Univ	41,329	33,066	30,969	29,405	24,231	20,357	12,402	11,969
123 University of Dayton	40,909	37,925	36,177	31,984	31,483	30,105	27,478	25,005
124 Univ of Rhode Island	40,842e	38,842	35,846	36,219e	35,940	27,369	27,805i	28,241
125 George Washington Univ	39,335	29,791	32,372	30,284	23,522	24,320	20,927i	17,534
126 Univ of Nevada - Reno	37,546	29,303	21,449	18,141	17,867	15,171	13,114i	11,057i
127 SUNY Hlth Sci Ctr - Brkln	37,071	32,824	22,873	20,523	18,374	17,008	15,537i	14,107i
128 Texas Tech University	36,869	34,994	34,124	33,926	29,374	28,390	25,326	18,588
129 Univ of Cal Santa Cruz	36,413	31,620	26,347	23,651	22,163	22,222	17,818	17,400
130 SUNY at Albany	35,856	20,580	22,034	24,240	19,625	18,815	16,433	13,016
Total, 1st 130 insts.	16,675,714	15,525,554	14,433,960	13,244,862	11,919,238	10,757,884	9,681,036	8,606,184
131 Brandeis University	35,229	33,837	30,881	30,596	26,618	23,811i	21,006i	18,201
132 North Dakota State Univ	34,466	31,935	12,468	10,433	8,638	19,508	17,537	17,447i
133 Montana State University	34,419	30,278	27,648	25,968	25,227	23,093i	20,960	19,703
134 Univ of New Hampshire	33,744	29,591	25,994	23,720	22,095	19,701	18,263	18,772
135 Syracuse University	32,145	30,606	33,811	35,543	33,643	30,348	27,289	24,340
136 Univ Alabama Huntsville	32,017	28,897	29,565	26,186	18,628	11,158	7,284	5,415
137 Med Univ of S. Carolina	31,900	25,877	23,128	23,017	20,949	19,658	19,278	13,677
138 Lehigh University	31,822	27,912	27,255	26,004	27,089	24,893	20,294	17,558
139 U of Neb Med Ctr at Omaha	31,564	27,858	17,844	17,291	14,684	12,492	11,759	10,262
140 San Diego State Univ	30,683	28,570	22,524	20,124	19,370	16,973	9,958	8,043
Total, 1st 140 insts.	17,003,703	15,820,915	14,685,078	13,483,744	12,136,179	10,959,519	9,854,664	8,759,602
141 University of Oregon	30,242	26,151	26,346	22,476	18,567	16,815	16,202	14,445
142 University of Wyoming	30,181	23,009	22,831	23,310	20,429	17,316	18,663	16,075
143 Loyola Univ - Chicago	30,099	22,702	12,260	11,303	8,327	7,123	6,375	5,364
144 Rice University	29,424	30,577	26,267	21,563	18,851	17,298i	15,747i	14,196
145 Southern Ill U-Carbondale	28,094	28,340	25,873	23,357	20,310	18,654	18,814	18,371
146 Univ of Central Florida	27,629	41,935	30,618	30,991	11,307	9,571i	7,835e	6,114
147 Rush University	26,184	27,359	21,284	21,741	19,827	16,342	13,969	11,293
148 The Medical Col of Penna	25,835	24,645	18,643	20,542	15,277	11,081	9,775i	8,469i
149 Univ of P R-Mayaguez	25,238	27,897i	30,555	29,343	27,091	24,491	22,728i	20,967i
150 N Mex Inst Mining & Tech	25,208	24,059i	22,911	22,289	20,357	23,709	16,796	13,209i
Total, 1st 150 insts.	17,281,837	16,097,589	14,922,666	13,710,659	12,316,522	11,121,919	10,001,568	8,888,105

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
151 University of Mississippi	23,361	24,748	22,071	17,092	15,125	13,377	12,970	9,484
152 Univ of Maine Orono	23,213	27,082	23,605	19,974	17,341	16,952	19,315	20,621
153 Drexel University	23,164	19,705	20,079	17,983	16,045	15,803	14,247	11,817
154 University of Notre Dame	22,679	21,302	19,373	19,385	17,845	14,409	13,581	13,906
155 The University of Alabama	22,573	21,248	21,488	18,395	15,836	13,362	11,221	7,799
156 Florida A & M University	22,230	18,552	15,847	14,171	12,079	9,364	8,401i	7,439
157 Medical Col of Georgia	21,426	12,082	12,052	11,363	9,925	10,053	9,323	8,008
158 N J Inst of Technology	21,126	16,463	15,225	11,402	8,327	10,418	8,579	4,094
159 Desert Research Institute	20,579	17,948	16,852	16,005	14,709	12,899	11,421	9,442
160 US Naval Postgrad School	20,412	19,397	17,391	15,306	15,[illegible]	13,053	13,216	12,212
Total, 1st 160 insts.	17,502,620	16,296,116	15,106,649	13,871,735	12,459,358	11,251,609	10,123,842	8,992,927
161 St Louis University	19,932	19,183	17,157	14,251	9,700	9,190i	8,684i	8,178i
162 College of William & Mary	18,890	18,508	17,792	15,394	8,031	6,694	5,923	10,788
163 Univ of Wis-Milwaukee	18,567	16,865	15,639	13,428	12,424	11,079	10,383	9,068
164 U of MD Center For EES	18,557	16,205	15,652	13,741	12,682	12,029	9,742	4,319
165 SUNY Col of Env Sci & For	18,456	19,049	18,671	17,221	12,917	11,690	11,249i	10,808
166 San Jose State University	18,326	12,100	10,086	9,488	10,104	9,351i	8,598i	7,845i
167 Univ of North Dakota	18,265	16,995	17,498	17,518	15,806	16,404	14,303i	12,202i
168 Michigan Tech University	18,179	19,667	16,037	15,186	14,321	12,656	12,386	11,649
169 Howard University	17,576	15,731	17,382	17,125i	16,870i	16,615	16,305	12,798
170 Wright State University	17,401	14,646	13,451	11,043	9,551	7,260	9,374	8,263
Total, 1st 170 insts.	17,686,769	16,465,065	15,266,014	14,016,130	12,581,764	11,364,577	10,230,789	9,088,845
171 University of Louisville	17,400	16,852	15,921	14,466	22,945	22,966	14,782	6,403
172 Hahnemann University	17,332	13,169	13,595	11,158	8,551	9,062	10,694	12,810
173 New York Medical College	16,799	14,633	13,244	12,958	13,817	11,794	9,327	7,837
174 CUNY City College	16,454	15,451	12,973	11,724	10,392	9,079	8,393i	7,707
175 U of Arkansas Med Sci Cam	15,889	14,250	11,898	10,834	9,851	8,094	6,813	5,515
176 Northeastern University	15,876	15,973	14,347	13,302	11,894	10,124	9,243	8,883
177 Univ of Missouri Rolla	15,619	14,432	14,285	17,692	18,823	14,712	14,027	10,392
178 Univ of Mass - Lowell	14,880	12,403	11,291	11,242	10,903	8,364	8,453	5,940
179 Ohio University	14,811	12,796	12,982	11,461	10,863	8,548	8,091	5,811
180 Stevens Institute of Tech	14,580	8,303	6,146	4,973	6,426	8,915	7,660i	6,407i
Total, 1st 180 insts.	17,846,409	16,603,327	15,392,696	14,135,940	12,706,229	11,476,235	10,328,272	9,166,550
181 Brigham Young University	14,469	12,682	11,608	11,544	10,967	11,341	10,086i	8,832
182 University of Akron	14,437	13,405	10,372	9,728	7,114	7,190	5,360	3,596
183 SUNY Hlth Sci Ctr - Syrcs	13,896	14,564	14,401	31,125	24,541	21,186	18,065	18,301
184 Univ of Tex at Arlington	13,896	12,887	5,729	7,064	7,670	5,760	4,950	3,160
185 Univ of P R-Med Sci Cmpus	13,685	11,014	6,293	6,528	5,517	6,893	6,397i	5,901i
186 Univ of Nevada, Las Vegas	13,300	19,491	15,449i	11,409i	7,369	6,184i	5,000i	3,816i
187 Univ of Texas at Dallas	12,995	10,571	12,075	11,265	10,936	10,677	7,947	7,352
188 SUNY at Binghamton	12,843	9,870	10,680	9,270	8,926	8,541	8,322	7,101
189 Colorado School of Mines	12,783	12,971	10,943	9,364	8,832	8,515	7,807	6,349
190 South Dakota State Univ	12,692	11,511	9,511	8,472	8,622	8,279	7,882	6,286
Total, 1st 190 insts.	17,981,405	16,732,293	15,499,757	14,251,709	12,806,723	11,570,801	10,410,088	9,237,244
191 Oregon Grad Inst Sci/Tech	12,332	11,160	9,262	8,825	8,470	6,926	6,109i	5,294i
192 Univ of South Alabama	12,277	12,924	11,105	10,503	8,578	7,668	7,574	7,477
193 Memphis State University	12,169	12,000	12,073	9,892	8,201	7,132	5,315	4,072
194 George Mason University	11,930	9,726	8,011	4,220	3,834	2,368e	1,755i	1,143i
195 NC Ag & Tech State Univ	11,914	10,427	8,657	6,706	6,401	4,461	5,754	4,938
196 Kent State University	11,655	8,469	7,172	5,534	5,086	4,573	3,662	3,855
197 Clark Atlanta University	11,483	8,655	7,896i	7,137i	6,378i	5,619i	4,860i	4,101i
198 Eastern VA Medical School	11,238	11,112	10,496	8,125	6,614	4,320	3,441i	2,562i
199 Cleveland State Univ	10,939	10,205	8,699	7,570	7,334	6,897	4,528	3,788
200 Med Col of Ohio at Toledo	10,905	9,353	7,159	6,809	5,495	7,652	7,267i	6,886i
Total, 1st 200 insts.	18,098,247	16,836,324	15,590,287	14,327,030	12,873,114	11,628,417	10,460,353	9,281,360

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
201 Old Dominion University	10,859	10,040	10,478	9,107	7,252	6,572	5,934i	5,296i
202 Univ of Southwestern LA	10,815	10,232	8,319	6,817	5,092	5,017	4,695i	4,374
203 Northern Illinois Univ	10,706	10,074	8,930	7,304	5,905	4,899	5,042	4,785i
204 Univ of North Texas	10,701	10,580	9,741	9,121	7,038	5,724	4,789	3,865
205 Boston College	10,400	9,810	8,052	6,152	6,137	5,099	4,926i	4,754
206 University of Montana	10,177	7,871	7,332	6,482	6,842	6,332	5,478i	4,624e
207 Univ of Texas at El Paso	10,147	9,447	6,889	4,168	2,641	2,605	1,933	1,475
208 Georgia State University	10,026	9,271	8,942	7,000	5,843	5,258	2,900	1,973
209 Univ of Missouri Kan City	9,889	8,300	8,310	7,926	7,630	4,790	3,837	2,444
210 Tenn Technological Univ	9,872	9,888	9,631	7,539	7,483	6,970	4,883i	2,796
Total, 1st 210 insts.	18,201,841	16,931,837	15,676,911	14,398,646	12,934,977	11,681,683	10,504,770	9,317,746
211 Albany Medical College	9,681	10,131	9,431	9,827	11,694	13,287	12,869i	12,451i
212 Clarkson University	9,518	9,125	8,392	7,523	7,804	7,442	6,975	4,612
213 Polytechnic University	9,273	9,272	10,919	11,345	9,378	9,400	7,779	6,441
214 CUNY Hunter College	8,939	8,075	6,928	6,526	6,437	6,943	5,858	3,859
215 Worcester Poly Institute	8,925	5,889	4,683	4,208	3,814	3,562	3,708i	3,853i
216 Mercer University	8,554	8,172	4,656	3,043	931	620	428	251
217 Northern Arizona Univ	8,388	6,913	5,902	5,368	4,204	3,774	2,308	2,117
218 University of Denver	8,284	6,484	10,102	8,938	10,038	12,239	13,957	14,801e
219 Creighton University	8,047	8,324	8,929	7,934	7,660	5,910i	4,171i	2,432
220 Loma Linda University	8,028	6,791	7,547	5,248	6,496	7,469	5,959i	4,450
Total, 1st 220 insts.	18,289,478	17,010,413	15,754,400	14,468,606	13,003,423	11,752,329	10,568,782	9,373,013
221 Florida Atlantic Univ	8,021	5,600	4,985	3,469	3,045	2,665	2,059	1,105e
222 Univ of Mass - Boston	7,974	--	--	--	--	--	--	--
223 Chas R Drew U of Med & Sc	7,862	7,043	4,970i	2,898	2,826	2,913	1,942i	971i
224 Southern Methodist Univ	7,722	8,607	13,600e	9,363	6,814	4,938	4,459i	3,981
225 U of MD Baltimore County	7,619	6,809	5,385	4,342	3,975	3,222	2,887	2,755
226 Inst Paper Sci and Tech	7,574	7,887	5,761	6,231	5,782	5,777	5,208	4,721
227 Catholic Univ of America	7,346	7,365	7,398	6,554	5,759	5,268	3,964	4,326
228 University of Toledo	7,287	6,743	5,551	4,599	3,843	2,950i	2,058	1,790
229 Meharry Medical College	7,258	7,249	6,663	6,564	5,228	4,797	4,137i	3,477i
230 Morehouse School of Med	7,106	6,291	5,891	4,320	2,222	0i	0i	0i
Total, 1st 230 insts.	18,365,147	17,074,007	15,814,604	14,516,946	13,042,917	11,784,859	10,595,496	9,396,139
231 Alabama A & M University	7,053	6,699	7,010	6,272	6,140	4,534	3,986i	3,439i
232 Southern U - All Campuses	6,813	5,942	5,237i	4,615	3,451	2,196	2,845	3,191
233 Illinois Inst of Tech	6,293	7,128	6,793	6,864	7,545	8,470	5,715	5,963
234 Wichita State University	6,285	5,182	3,196	3,443	4,758	2,741	2,018	1,890
235 Western Michigan Univ	6,199	6,011	4,257	3,103i	1,949	1,267	1,600	822
236 Prairie View A & M Univ	6,098	3,623	3,521	3,680	1,741e	1,498	2,015i	2,531i
237 Virginia State University	6,075	5,795	3,258	2,620	2,476	2,356i	2,236i	2,116
238 East Carolina University	6,067	6,119	6,098	5,241	4,679	3,771	3,858	3,095i
239 University of Tulsa	5,961	5,318	4,325	3,326	3,333	2,852i	2,371i	1,890
240 Florida Inst of Tech	5,924	6,305	7,003	3,531	2,505	1,918	1,886	2,091
Total, 1st 240 insts.	18,427,915	17,132,129	15,865,302	14,559,644	13,081,494	11,816,462	10,624,026	9,423,167
241 U Hlth Sci/Chcgo Med Schl	5,899	4,908	4,695	4,535	4,369	3,866	3,677	3,479
242 Oakland University	5,804	5,912	4,102	4,673	3,132	4,500	4,016i	3,535i
243 Wesleyan University	5,603	3,248	4,021	3,943	3,140	3,397	2,456	2,750
244 Univ of Sthrn Mississippi	5,375	7,388	4,666	4,413	3,517	3,840	2,440	1,798
245 Tuskegee University	4,800	4,426	5,089	5,348	3,752	2,752	1,787i	822
246 Univ of N C at Charlotte	4,724	3,220	3,152	2,014	2,085	1,870i	1,656i	1,442i
247 U of the Virgin Islands	4,589e	4,736i	4,883e	4,734	4,666	2,386e	1,760	1,312
248 Univ. of Puerto Rico	4,518	5,058	5,374	4,017	4,741	4,175	3,904i	3,633i
249 Tennessee State Univ	4,475	3,709	3,300	3,442	3,408	2,719	2,661	2,422e
250 Portland State University	4,433	4,169	3,834	3,374	2,810	2,737	2,298i	1,859
Total, 1st 250 insts.	18,478,135	17,178,903	15,908,418	14,600,127	13,117,114	11,848,704	10,650,681	9,446,179

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
251 American University	4,330	5,057	4,127	3,765	3,917	3,286	2,720 i	2,156 i
252 Univ of Missouri St Louis	4,304	2,468	2,291	2,439	2,218	1,824	1,950	1,527
253 Marquette University	4,256	3,821	3,262	2,454	2,411	1,621	1,559	1,749
254 Alfred University	4,117	3,911	4,067	3,874	3,829	2,591	1,929	1,501
255 Jackson State University	4,065	3,912	3,762	3,747	3,403	2,260	2,076 i	1,896 i
256 Louisiana Tech University	3,985	2,759	3,894	3,930	2,828	2,775	2,610 i	2,445 i
257 Miami University (Ohio)	3,972	3,087	2,203	2,364	2,194 i	2,024 i	1,854 i	1,684 i
258 Texas Col of Osteo Med	3,920	3,504	2,767	3,630	4,461	3,560	3,247	2,968 i
259 Air Force Inst of Tech	3,813	2,243	2,200	1,800 i	1,400	456	370 i	285
260 S Dak Sch Mines & Tech	3,693	2,850	3,000	2,596	2,418	1,916	1,978	1,847
Total, 1st 260 insts.	18,518,590	17,212,515	15,939,991	14,630,736	13,146,193	11,871,017	10,670,974	9,464,237
261 South Carolina St College	3,665	2,526	2,593	1,694 i	796	878 i	955 i	1,032 i
262 U of MD Eastern Shore	3,640	1,620	1,850	2,944	1,736	1,522	1,615	1,534 i
263 Bowling Green State Univ	3,430	3,729	3,400	3,353	3,142	2,439	2,018	1,763
264 Illinois State University	3,294	2,898	2,951	2,559	2,578	2,296	1,758	1,652 i
265 Hampton University	3,272	3,345	2,307	2,168	--	--	--	--
266 Lincoln University	3,194	3,027	2,771	2,901	--	--	--	--
267 CUNY Grad Sch & Univ Ctr	3,185	2,554	3,858	3,069	2,189	2,336	2,569	1,363
268 Texas Christian Univ	3,128	2,859	1,823	888	737	912	1,124	1,047
269 New York Inst Technology	3,085 i	2,900e	3,087	3,998	5,678	6,093	4,838 i	3,584
270 Cal Poly St U San Luis Ob	3,079	3,258	3,118	3,182	1,795	1,615 i	1,437 i	1,259 i
Total, 1st 270 insts.	18,551,562	17,241,231	15,967,749	14,657,492	13,164,844	11,889,108	10,687,288	9,477,471
271 Univ of Missouri Sys Off	2,969	3,561	2,991	9,500	8,734	9,512	8,735	6,730
272 Lamar University	2,964	2,898	2,121	779	202	417	330	199
273 Texas A & I University	2,937	2,674	2,558	2,941	2,470	2,288 i	2,109 i	1,930 i
274 University of D C	2,900	2,865	2,569	2,271 i	1,973	1,485	2,371	2,172
275 Idaho State University	2,756	2,030	1,634	1,312	711	709	661	401
276 Fort Valley State College	2,711	2,370	2,313	2,173	--	--	--	--
277 Eastern Washington Univ	2,646	2,289	1,811	1,615	1,333	1,384	1,098	929
278 Kentucky State University	2,525	2,026	2,856	1,721	1,697	1,856	1,656 i	1,456 i
279 Alcorn State University	2,517	2,041	1,935	1,850	1,692e	1,623 i	1,554 i	1,485
280 Northeast Louisiana Univ	2,401	904	1,138	439	386	308	315	235
Total, 1st 280 insts.	18,578,888	17,264,889	15,989,675	14,682,093	13,184,042	11,908,690	10,706,117	9,493,008
281 Xavier University of LA	2,379	2,424	1,902	1,294	--	--	--	--
282 Univ of Ark Pine Bluff	2,372	2,419	1,188	1,148	1,199	1,047	1,010	1,002
283 Albany State College	2,339	1,172	1,173	1,721	366	263	207 i	152 i
284 Texas Southern Univ	2,329	2,101	1,546	1,519	1,703	1,491 i	1,279 i	1,067
285 CUNY Queens College	2,328	2,518	2,551	2,301	2,204	2,086 i	1,971 i	1,856 i
286 Institute of Textile Tech	2,281	2,148	1,921	1,311	1,678	1,238	1,172 i	1,109 i
287 Univ of N C at Greensboro	2,128	1,989	1,154	823	455	495	386	604
288 Santa Clara University	2,103	1,579	1,569	1,396	1,355	1,094	962	1,114
289 Amherst College	2,080	1,751	1,792	1,557	1,549	1,400 i	1,254 i	1,108 i
290 Univ of Wis-Stout	2,019	2,282	755	635	464	379 i	297 i	215 i
Total, 1st 290 insts.	18,601,946	17,285,272	16,005,226	14,695,802	13,195,015	11,918,183	10,714,655	9,501,235
291 Univ of Mass - Dartmouth	1,941	--	--	--	--	--	--	--
292 Fordham University	1,936	1,816	2,501	2,648	2,386	2,190	1,850 i	1,511 i
293 Univ of Wis-Superior	1,881	1,707	1,704	1,745	1,553	1,659	1,412	1,518
294 Univ of South Dakota	1,851	1,598	1,831	1,381	1,287	1,200 i	1,113 i	1,026 i
295 Calif St Poly Univ Pomona	1,784	1,584	1,320	1,314	1,626	1,340 i	1,058 i	776 i
296 East Tennessee State Univ	1,750	1,740	1,902	1,629	1,163	1,258	1,136 i	1,015
297 Langston University	1,750	1,310	1,200	2,349	--	--	--	--
298 NE Ohio Univ Med School	1,747	1,408	1,409	1,616	1,956	1,349	1,020	1,062
299 Bryn Mawr College	1,746	2,490	1,854	895	817	807	565	509
300 Univ of Nebraska at Omaha	1,737	1,354	1,002	410	235	186	151	109
Total, 1st 300 insts.	18,619,369	17,300,279	16,019,949	14,709,789	13,206,038	11,928,172	10,722,960	9,508,761

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
301 University of Detroit	1,731	1,450	1,526	1,282	805	798i	795i	792i
302 Occidental College	1,722	1,570	1,627	2,011	1,535	1,482i	1,431i	1,380i
303 Central Michigan Univ	1,715	1,066	1,071	866	1,025	1,164	669	268
304 Ponce School of Medicine	1,715	1,372	943	856	663	657	715	11
305 Clark University	1,694	1,314	1,281	1,256	1,111	1,058	1,335i	1,611i
306 Central State University	1,691	1,640	3,976	673	--	--	--	--
307 New Sch For Soc Research	1,572	1,164	1,026	1,000	1,282	585	425i	266i
308 Villanova University	1,560	1,461	1,390	1,440	696	755	547i	339
309 Pomona College	1,531	1,339	1,179	1,264	536	600i	662i	724i
310 Stephen F Austin St Univ	1,490	1,178	1,390	1,417	791	863	896i	928i
Total, 1st 310 insts.	18,635,790	17,313,833	16,035,358	14,721,854	13,214,482	11,936,134	10,730,435	9,515,080
311 Smith College	1,481i	1,392i	1,398	1,774	1,264	1,265i	1,265i	1,265i
312 Baylor University	1,469	1,067	1,143	1,841	934	931	870i	810i
313 CUNY Bernard Baruch Col	1,459	1,897	1,150	646	194	234i	266i	298i
314 SUNY College Buffalo	1,430	1,240	832	863i	893i	923i	953i	983i
315 Union College (NY)	1,415	1,254i	1,098i	942i	786i	630i	474i	318
316 Tarleton State University	1,396	998	309	38	44	44	53i	61i
317 Texas Woman's University	1,394	1,359	1,336	969	825	709	740	1,112
318 Delaware State College	1,387	1,330	1,027	1,027	--	--	--	--
319 Univ of West Florida	1,350	1,254	1,358	1,619	1,313	2,099i	2,882i	3,665i
320 Morris Brown College	1,341e	887	647e	164	--	--	--	--
Total, 1st 320 insts.	18,649,912	17,326,511	16,045,656	14,731,737	13,220,735	11,942,969	10,737,938	9,523,592
321 Nova University	1,323	1,667	1,601	1,108	962	873	730i	587
322 Fisk University	1,317	641	1,156	1,157	1,741	862	732i	604i
323 Tougaloo College	1,302	1,262	1,028	1,191	--	--	--	--
324 U Ctrl Del Caribe Esc Med	1,294	852	620	682	540	577	819	175
325 Wentworth Inst of Tech	1,287	1,460	1,435	1,383	1,457	1,431i	1,405i	1,379i
326 Indiana State University	1,267	1,179	903	967	949	541	782	690i
327 CUNY Col Staten Island	1,236	1,140	1,351	1,171	867	788i	712i	636i
328 Morehouse College	1,223	926	868	1,093	--	--	--	--
329 Morgan State University	1,223	701	657	649	742e	635	686	775i
330 Ball State University	1,211	1,241	850	798	696	664	725	725
Total, 1st 330 insts.	18,662,595	17,337,580	16,056,125	14,741,936	13,228,689	11,949,340	10,744,729	9,529,163
331 Barnard College	1,150	758	653	717	677	670i	667i	664i
332 Chicago Col of Osteo Med	1,097	1,372	1,161	1,651	2,252	1,772	1,268	1,188
333 Lincoln University (PA)	1,090	510	845	768e	867	648i	432i	216i
334 Sam Houston State Univ	1,072	1,239	380	219	206	320	390	264
335 St John's University (NY)	1,069	899	759	632	814	769i	726i	683
336 SUNY College Plattsburgh	1,022	1,217	1,254	1,030	1,164	922	1,075	341
337 University of the Pacific	1,020	1,103	897	990	968i	951i	934i	917i
338 Bennett College	914	64	425	364	--	--	--	--
339 DePaul University	914	786	972	905	576	617	376i	135e
340 Phila Col of Pharm & Sci	907	968	1,153	778	405	342	425	302
Total, 1st 340 insts.	18,672,850	17,346,189	16,064,624	14,749,990	13,236,618	11,956,351	10,751,022	9,533,873
341 CUNY York College	877	850	816	826	723	659	779i	899
342 Cal Sch Prof Psych-Fresno	875	661	1,382	1,922	1,015	535	267i	0
343 Univ of Wis-La Crosse	875	862	795	531	309	347	338	534
344 Canisius College	856	337	619	209	309	289i	270i	251i
345 Kirksville Col Osteo Med	856	624	539	727	791i	855	769i	689i
346 Univ of Wis-Stevens Point	827	498	449	432	362	380i	394i	408i
347 Rust College	798	289	156	214	--	--	--	--
348 Selma University	798	650	790	816	--	--	--	--
349 Norfolk State University	793	752	826	652	425	304	456	588
350 SUNY College Oswego	792	350	160	467	341	334	422i	510
Total, 1st 350 insts.	18,681,197	17,352,062	16,071,156	14,756,786	13,240,893	11,960,054	10,754,717	9,537,752

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
351 Arkansas State University	776	742	755	715	432	422i	416i	410i
352 North Carolina Cntrl Univ	755	477i	199	555e	571	515i	464i	413i
353 Milwaukee School of Eng	748	486	508	565	640	614i	594i	574i
354 Baylor Col of Dentistry	745	824	849	788	692	598	629	414
355 Grand Valley State Univ	730	611	570	465	576	484i	392i	300i
356 Knox College	721	554	410	382	292	250i	212i	174i
357 Northeast Missouri St U	720	1,118	1,522	1,605	772	402	272i	142
358 Benedict College	702	0	0	0	--	--	--	--
359 Univ of Northern Iowa	687	559	357	156	95	78i	62i	46i
360 Marshall University	663	918	1,270	1,679	1,526	938	837	856
Total, 1st 360 insts.	18,688,444	17,358,351	16,077,596	14,763,696	13,246,489	11,964,355	10,758,595	9,541,081
361 Claremont Univ Ctr & Grad	639	571	583	746	1,353	1,367	1,280i	1,193i
362 Bethune Cookman College	626	599	554	440	--	--	--	--
363 Augsburg College	620	382	139	115	90	82i	75i	68i
364 Alabama State University	614	448	423	456	--	--	--	--
365 Abilene Christian Univ	599	493	312	353	334	295i	260i	225i
366 Univ of Wis-Parkside	587	561	798	883	704	659i	614i	569i
367 Winston-Salem State Univ	583	617	532	650	--	--	--	--
368 West Texas State Univ	550	560	533	597	470	677	524	617
369 Spelman College	547	444	505	399	--	--	--	--
370 Grambling State Univ	520i	450i	409	106	64	136	137i	137i
Total, 1st 370 insts.	18,694,329	17,363,476	16,082,384	14,768,441	13,249,504	11,967,571	10,761,485	9,543,890
371 Phila Col Osteopathic Med	506	423i	340	512	381	344	233	116i
372 Bowie State University	425	234	35	0	--	--	--	--
373 Colorado College	425	464	151	74	53	72i	85i	98i
374 SUNY College Brockport	406	948	833	357	219	205i	195i	185i
375 Columbia U Teachers Col	401	429	803	581	900	765	644i	525i
376 Cal Sch Prof Psych-L A	378	490	1,316	1,551	616	500	500	0
377 Univ of Wis-River Falls	370	192	122	142	85	73i	65i	57i
378 Adelphi University	355	405	499i	592	466i	341	317i	296i
379 Univ of Wis-Eau Claire	350	292	430	544	369	324i	281i	238i
380 Northwestern St Univ La	349	119	112	77	7	9i	11i	13i
Total, 1st 380 insts.	18,698,294	17,367,472	16,087,025	14,772,871	13,252,900	11,970,204	10,763,816	9,545,418
381 Elizabeth City State Univ	341	0	15	26	--	--	--	--
382 Duquesne University	340	572	558	357	357	357	380i	400i
383 Univ of Wis-Green Bay	335	329	449	616	376	402i	425i	448i
384 SUNY St Coll of Optometry	329	231	483	494	375	518	448i	381i
385 SUNY College Geneseo	327	214	316	188	218	179i	142i	105i
386 Univ of Wis-Oshkosh	310	344	312	217	166	145i	127i	109i
387 University of Portland	305	169	370	462	598	481i	365i	249i
388 SUNY College Fredonia	283	54	130i	206i	282	277i	272i	267i
389 Andrews University	278	255	394	200	190e	160i	130i	100i
390 Johnson C. Smith Univ	276	475	477	480	--	--	--	--
Total, 1st 390 insts.	18,701,418	17,370,115	16,090,529	14,776,117	13,255,162	11,972,723	10,766,105	9,547,477
391 Univ of Northern Colorado	271	132	223	182	33	50	61	48
392 Northeastern Ill Univ	257	33	118	77	37	52i	63i	74i
393 Claflin College	240	383	205	0e	--	--	--	--
394 East Stroudsburg U of PA	224	202	440	447	486	414	347i	280i
395 Long Island University	217	170	171	313	572	324	116	132
396 Hofstra University	211	493	515	366	165	258	278	219
397 Pacific Lutheran Univ	208	130	577	44	70	75i	77i	79i
398 Oakwood College	206	179	226	0	--	--	--	--
399 St Olaf College	196	167	172	136	210	216i	222i	228i
400 Savannah State College	195	212	221	179	--	--	--	--
Total, 1st 400 insts.	18,703,643	17,372,216	16,093,397	14,777,861	13,256,735	11,974,112	10,767,269	9,548,537

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
401 Drake University	190	354	182	167	163	144 i	126 i	108 i
402 Fayetteville State Univ	187	275	154	360	--	--	--	--
403 Monmouth College (NJ)	184e	175	96	100	0	0 i	0 i	0 i
404 West Virginia State Col	179	218	146	81	--	--	--	--
405 East Texas State Univ	176	260	279	401	269	429	408	276
406 Seton Hall University	164 i	153 i	186 i	220 i	254 i	287 i	321 i	355 i
407 Univ of Wis-Whitewater	164	141	78	134	70	60 i	53 i	46 i
408 Mass Col Phar/Allied Hlth	156	215	73	41	90 i	137 i	184 i	231 i
409 Kutztown Univ of Penn	146	55	119	195	360	330 i	306 i	282 i
410 Philander Smith College	145	154	120	165	--	--	--	--
Total, 1st 410 insts.	18,705,334	17,374,216	16,094,830	14,779,725	13,257,941	11,975,499	10,768,667	9,549,835
411 Montclair State College	143	131	76	25	36	45 i	47 i	49 i
412 Sul Ross State University	139	156	301	215	155	141 i	129 i	117 i
413 SUNY College New Paltz	131	257	387	107	36	220	198 i	178 i
414 Southern Oregon St Col	130	109	57	89	0	0	0	2
415 SUNY College Oneonta	121e	121	104	77	67	77 i	86 i	95 i
416 Fairleigh Dickinson Univ	118	859	3,183	3,356	4,196	3,210	2,276	1,680
417 SUNY College Cortland	118	96	254	168	151	127 i	104 i	81 i
418 Mayo Foundation	116	0	0	0	0	0	0 i	0 i
419 W VA Schl Osteopathic Med	112	168	134	120	85	90	78 i	66
420 Univ of Health Sciences	105	0	0	0	58	83	54 i	27 i
Total, 1st 420 insts.	18,706,567	17,376,113	16,099,326	14,783,882	13,262,725	11,979,492	10,771,639	9,552,130
421 SUNY College Potsdam	104	140	91	145	113	144 i	170 i	196 i
422 Coppin State College	103	212	1,017	834	--	--	--	--
423 Jarvis Christian College	97	60	75	60	--	--	--	--
424 Bemidji State University	94	32	74	60	48	40 i	36 i	32 i
425 Antioch University	92	0	0	0	0	1 i	2 i	3 i
426 Catholic U of PR	91	217	286	515	443	522	514 i	507 i
427 Oral Roberts University	82	37	60	1,206	2,637	2,519 i	2,401 i	2,283
428 Providence College	80	103	25	18	47	37	24 i	12
429 Knoxville College	76 i	59 i	86 i	60	--	--	--	--
430 Goucher College	71	73	87	78	62	72 i	82 i	92 i
Total, 1st 430 insts.	18,707,457	17,377,046	16,101,107	14,786,858	13,266,075	11,982,827	10,774,868	9,555,255
431 Miss Valley State Univ	71	64	43	14	31	0	0 i	0 i
432 Cal Sch Prof Psych-S D	69	68	65 i	62	59	0	0 i	0
433 Chapman University	69	78 i	86	81e	81	70 i	60 i	50 i
434 Seattle University	59	94	148	241	167	0	10 i	20e
435 Fuller Theological Sem	40	150	50	60	50	20	12	7
436 Univ Osteo Med & Hlth Sci	36	163	67	97	108	20	12 i	6 i
437 Univ of Wis-Platteville	34	38	23	47	10	13 i	13 i	13 i
438 Col Osteo Med of Pacific	6	6	9	11	0	0	0	0
439 Shaw University	6	0	0	0	--	--	--	--
440 Xavier University	1	31 i	60	116	149	234 i	318 i	402 i
Total, 1st 440 insts.	18,707,848	17,377,738	16,101,658	14,787,587	13,266,730	11,983,184	10,775,293	9,555,753
441 Biola University	0	0	0	13	0	0	0	0
442 Cal Sch Prof Psych-Berkly	0	0	0	0	0	0	0	0
443 Calif St Univ Stanislaus	0	0	0	0	0	431 i	862 i	1,293 i
444 Cheyney University of PA	0	0	0	0e	--	--	--	--
445 Dillard University	0	0	0	469	0	0	0 i	0 i
446 Fielding Institute	0	0	0	0	0	0	0	0
447 Paul Quinn College	0	0	0	0	--	--	--	--
448 RAND Grad Schl Pol Stdies	0	0	0	0	0	0	0 i	0
449 Slippery Rock Univ of PA	0	0	0	0	45	36 i	27 i	18 i
450 St Bonaventure University	0	0	0	0	3 i	6e	4 i	2 i
Total, 1st 450 insts.	18,707,848	17,377,738	16,101,658	14,788,069	13,266,778	11,983,657	10,776,186	9,557,066

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Total							
	1992	1991	1990	1989	1988	1987	1986	1985
451 St Louis Community Col	0	0	0	0	0	0i	0i	0i
452 Stillman College	0	0	0	0	--	--	--	--
453 Talladega College	0	0	0	366	--	--	--	--
454 The Wright Institute	0	0	0	0	0	0	0	295i
455 Trenholm State Tech Col	0	100	30	22	--	--	--	--
456 U of California System	0	0	0	0	26,439	19,307	13,926	11,866
457 US International Univ	0	0	92	224	0	0	0	0i
458 Union Institute	0	0	0	0	0	0	0i	0i
459 Voorhees College	0	0	0	0	--	--	--	--
460 Wiley College	0	0	0	0	--	--	--	--
Total, 1st 460 insts.	18,707,848	17,377,838	16,101,781	14,788,681	13,293,217	12,002,964	10,790,112	9,569,227
Total, all other sampled insts.	0	119,657	103,747	111,777	169,579	148,971	136,836	117,193
Estimated total non-sampled insts.	171,857	140,132	128,872	118,545	0	0	0	0

1/ Johns Hopkins University includes Applied Physics Laboratory with $463 million in total R&D expenditures.

2/ These data do not include R&D expenditures at university-associated federally funded research and development centers. See tables B-73 and B-74.

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
Total, all institutions	11,087,032	10,226,104	9,637,485	8,996,808	8,191,521	7,341,570	6,710,320	6,063,176
1 Johns Hopkins Univ 1/	666,696	641,239	599,851	590,184	509,009	476,290	412,714	367,053
2 Stanford University	265,687	243,219	255,821	238,650	232,572	204,386	192,076	172,423
3 University of Washington	257,840	221,124	203,353	182,453	160,261	145,184	141,973	135,830
4 Mass Inst of Technology	237,972	237,667	233,813	215,140	210,419	206,785	201,097	189,935
5 University of Michigan	223,452	206,276	180,456	174,875	160,854	137,558	118,069	106,147
6 Univ of Cal San Diego	219,843	200,451	182,555	171,479	159,778	142,751	128,250	115,632
7 Univ of Cal San Francisco	202,283	190,936	175,257	159,906	137,747	117,302	105,694	95,615
8 Univ of Wis-Madison	199,816	183,652	178,862	169,452	162,384	149,665	138,784	123,989
9 Univ of Cal Los Angeles	180,743	167,885	164,442	159,002	146,946	130,763	121,668	109,689
10 Cornell University	180,361	173,478	171,249	157,984	153,662	144,604	134,660	119,319
Total, 1st 10 insts.	2,634,693	2,465,927	2,345,659	2,219,125	2,033,632	1,855,288	1,694,985	1,535,632
11 Columbia Univ Main Div	174,777	163,561	156,270	146,712	139,558	133,018	128,436	120,120
12 Harvard University	174,632	156,014	154,090	143,451	133,003	119,955	111,503	103,556
13 University of Minnesota	165,926	164,887	143,810	132,880	119,789	109,003	100,308	87,776
14 Univ of Pennsylvania	159,574	144,451	133,747	123,810	115,080	111,185	105,925	92,893
15 Yale University	157,345	149,506	144,962	138,835	132,952	116,943	107,600	98,700
16 Pennsylvania State Univ	151,877	146,212	136,656	114,646	106,020	93,200	82,412	70,099
17 Univ of Cal Berkeley	148,954	140,261	131,717	124,371	116,565	108,828	102,578	96,779
18 Univ of Southern Cal	141,713	132,230	123,714	119,005	112,615	101,749	92,906	76,425
19 Univ. of Colorado	129,894	119,068	116,394	109,145	96,041	83,144	74,887	69,359
20 University of Ill Urbana	129,086	118,748	117,168	114,398	109,633	104,420	83,996	80,536
Total, 1st 20 insts.	4,168,471	3,900,865	3,704,187	3,486,378	3,214,888	2,936,733	2,685,536	2,431,875
21 Duke University	125,742	114,879	106,053	99,036	86,240	67,925	62,879	56,437
22 Univ of Texas at Austin	124,614	113,192	109,593	94,311	89,982	88,395	75,152	65,029
23 Washington University	123,863	112,475	105,759	96,829	88,843	77,757	68,399	61,050
24 University of Pittsburgh	121,077	99,932	90,700	81,217	72,462	62,060	55,805	48,714
25 Univ of NC at Chapel Hill	113,774	103,485	92,468	93,280	82,723	72,529	64,625	55,746
26 Texas A & M University	112,918	97,727	93,001	93,584	90,163	75,432	75,946	71,346
27 University of Rochester	110,413	106,874	105,644	101,049	92,533	80,322	75,939	64,064
28 University of Arizona	105,912	101,818	92,920	80,533	73,309	65,024	61,973	51,694
29 Georgia Institute of Tech	101,295	101,476	94,842	98,048	78,798	63,132	58,432	50,349
30 California Inst of Tech	99,198	100,820	90,577	84,167	78,750	71,086	63,708	56,805
Total, 1st 30 insts.	5,307,277	4,953,543	4,685,744	4,408,432	4,048,691	3,660,395	3,348,394	3,013,109
31 Ohio State University	97,940	88,542	78,878	75,484	69,135	58,555	56,418	53,240
32 University of Chicago	97,182	93,683	96,327	90,459	80,967	75,889	73,304	66,950
33 Univ of Cal Davis	91,318	79,961	77,424	72,718	63,435	56,622	48,549	47,652
34 University of Iowa	88,360	81,007	79,046	74,271	64,370	57,159	52,497	48,059
35 New York University	87,081	81,896	80,756	81,143	77,746	76,126	69,099	60,567
36 Baylor Col of Medicine	85,734	78,752	75,793	69,336	60,825	49,834	46,729	41,749
37 Case Western Reserve Univ	83,387	76,390	70,515	68,632	59,078	53,580	47,032	42,182
38 Univ of MD College Park	82,469	77,866	66,410	58,924	55,365	55,194	43,769	39,365
39 Univ Alabama Birmingham	82,392	76,317	74,486	68,204	62,369	54,534	45,337	39,030
40 Vanderbilt University	79,594	71,021	66,747	56,151	44,646	31,343	27,269	24,709
Total, 1st 40 insts.	6,182,734	5,758,978	5,452,126	5,123,754	4,686,627	4,229,231	3,858,397	3,476,612
41 University of Utah	79,386	68,769	62,297	61,819	57,383	54,226	51,428	45,564
42 SUNY at Buffalo	77,628	68,945	66,876	64,453	60,097	51,212	47,308	42,860
43 University of Miami	76,477	69,847	68,144	63,101	48,971	38,052	36,531	32,817
44 Woods Hole Ocngrphic Inst	74,229	67,154e	62,356	64,333	49,400	42,239	38,666	38,560
45 Univ. Of Tennessee System	72,047	63,575	58,644	57,736	53,897	45,808	42,615	38,245
46 Emory University	69,894	60,586	52,367	46,497	43,668	36,698	32,819	26,136
47 Indiana University	69,871	61,831	57,155	58,334	52,498	44,211	40,024	37,527
48 Carnegie-Mellon Univ	69,848	65,290	64,550	65,079	63,009	53,817	41,706	37,666
49 Northwestern University	69,241	62,718	62,183	57,510	54,245	49,286	46,755	42,317
50 Purdue University	68,224	67,810	64,464	63,979	64,163	56,302	56,475	48,542
Total, 1st 50 insts.	6,909,579	6,415,503	6,071,162	5,726,595	5,233,958	4,701,082	4,292,724	3,866,846

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
51 Yeshiva University	68,152	67,831	65,066	58,224	58,823	59,768	56,922	55,794
52 University of Virginia	68,151	61,060	58,801	51,214	47,482	41,267	38,541	35,152
53 University of Florida	67,590	66,777	64,614	60,731	54,785	49,311	46,751	42,031
54 Boston University	66,677	60,166	60,459	56,402	51,918	49,406	45,457	38,257
55 Michigan State University	66,466	61,646	58,221	51,741	49,771	44,989	47,725	46,605
56 SUNY at Stony Brook	63,608	58,977	55,911	49,726	54,017	40,302	35,249	31,946
57 New Mexico State Univ	62,872	57,522	54,688	45,660	43,481	37,904	33,394	29,235
58 UT SW Medical Ctr-Dallas	61,499	57,746	54,965	51,254	48,357	45,382	38,504	34,087
59 Colorado State University	59,766	55,689	50,744	46,572	44,600	38,961	36,592	28,702
60 Oregon State University	59,739	51,099	50,544	49,112	48,877	46,774	41,307	41,117
Total, 1st 60 insts.	7,554,099	7,014,016	6,645,175	6,247,231	5,736,069	5,155,146	4,713,166	4,249,772
61 Rutgers the St Univ of NJ	56,625	48,822	40,977	35,896	29,204	27,178	24,059	23,947
62 University of Cincinnati	56,375	47,445	44,966	40,598	35,986	32,044	27,758	24,924
63 Princeton University	55,722	52,335	51,559	47,176	47,245	43,505	36,199	30,892
64 Univ of Cal Irvine	55,331	52,652	52,492	46,492	42,894	38,138	38,328	34,772
65 Utah State University	54,904	61,762	58,965	42,449	34,763	22,109	22,814	21,716
66 Univ of Cal Santa Barbara	52,777	46,647	47,873	39,227	36,205	32,856	27,320	23,131
67 VA Polytech Inst & St U	51,281	47,866	45,949	38,597	33,771	32,129	30,259	25,650
68 CUNY Mt Sinai Sch of Med	50,853	42,035	43,607	37,233	32,852	31,024	26,166	23,997
69 N C State Univ at Raleigh	50,501	46,894	43,787	37,783	34,256	33,662	30,851	28,229
70 University of Georgia	48,962	45,019	43,864	42,797	39,703	35,261	32,184	28,403
Total, 1st 70 insts.	8,087,430	7,505,493	7,119,214	6,655,479	6,102,948	5,483,052	5,009,104	4,515,433
71 Louisiana State Univ Sys	48,641	57,059	48,802	40,114	35,578	31,089	27,808	26,086
72 Univ of Ill Chicago	48,484	43,203	43,968	43,288	40,260	34,570	30,109	26,357
73 Univ of MD Balt Prof Sch	48,088	43,682	38,841	35,970	33,102	26,244	21,735	19,738 I
74 Univ of Hawaii-Manoa	47,684	44,857	42,665	40,574	38,560	34,472	35,322	34,886
75 University of Connecticut	45,967	46,156	43,477	46,184	38,953	36,884	36,142	38,944
76 Virginia Commonwith Univ	45,891	44,974	41,606	35,151	31,150	31,095	27,242	26,816
77 Iowa St U of Sci & Tech	45,144	42,793	34,043	28,895	23,306	19,682	17,376	16,030
78 Georgetown University	42,659	41,597	36,093	37,351	30,666	24,477	19,894	16,887
79 Tufts University	42,112	39,113	38,290	40,771	41,953	37,148	32,696 I	28,249 I
80 U Tex Hlth Sci Ctr S Anto	41,048	32,770	29,431	29,324	27,528	22,469	22,779	19,697
Total, 1st 80 insts.	8,543,148	7,941,697	7,516,430	7,033,101	6,444,004	5,781,182	5,280,207	4,769,123
81 University of New Mexico	40,033	30,141	25,449	23,934	24,862e	29,096	35,810	33,040
82 University of Kentucky	39,828	31,636	29,612	27,010	27,724	26,261	21,736	16,497
83 Univ of Med & Dent of N J	39,092	38,758	33,185	27,983	21,849	16,989	15,840	14,753
84 Dartmouth College	38,791	34,317	30,135	27,222	25,729	21,864	18,816 I	15,769 I
85 Washington State Univ	38,213	32,257	26,884	22,697	21,361	21,274	20,115	20,567
86 Brown University	37,856	35,571	36,919	34,506	35,150	32,024	25,333	22,645
87 Rockefeller University	37,832	36,759	36,788	41,192	37,452	37,983	35,738	30,047
88 Wake Forest University	37,505	33,385	30,182	28,511	23,026	18,772	16,497 I	14,224 I
89 U Tex Hlth Sci Ctr Houstn	36,478	32,778	29,017	29,500	27,658	24,727	22,604	19,023
90 Wayne State University	35,569	30,583	28,488	28,167	22,716	16,927	15,789	15,682
Total, 1st 90 insts.	8,924,345	8,277,892	7,823,089	7,323,823	6,711,531	6,027,099	5,508,485	4,971,370
91 Univ of Mass - Worcester	35,413	--	--	--	--	--	--	--
92 University of Dayton	34,927	31,132	29,044	26,650	26,101	25,370	23,631	21,272
93 UT MD Anderson Cancer Ctr	34,492	32,314	28,889	28,992	27,129	22,162	21,304	19,408
94 Oregon Hlth Sciences Univ	33,548	28,897	27,241	24,162	18,240	15,379	13,241	10,928
95 Univ of Mass - Amherst	33,408	--	--	--	--	--	--	--
96 Tulane University	33,304	36,713	28,331	24,095	23,727	21,836	18,420	14,471
97 Arizona State University	33,148	26,246	26,590	22,151	19,006	14,009	13,541	12,556
98 U of VT & State Agr Coll	32,757	30,860	30,555	28,535	25,539	22,289	19,848	18,957
99 Univ of Alaska Fairbanks	32,066	34,335	31,896	26,659	23,441e	21,523 I	19,607 I	17,691 I
100 University of Kansas	31,992	26,419	26,786	26,420	24,880	22,941	21,837	19,731 I
Total, 1st 100 insts.	9,259,400	8,524,808	8,052,421	7,531,487	6,899,594	6,192,608	5,659,914	5,106,384

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
101 Mississippi State Univ	29,746	25,751	21,426	17,694	13,556	12,387	12,781	11,151
102 University of Oklahoma	29,733	25,786	16,871	17,020	16,326	14,453	14,263	17,229
103 Thomas Jefferson Univ	28,861	23,100	22,451	21,311	16,766	14,070	7,307	7,229
104 George Washington Univ	28,158	23,715	26,817	25,220	19,888	20,142	17,579i	15,016
105 Univ of Missouri Columbia	28,047	27,463	24,422	22,312	20,170	20,250	20,068	18,577
106 West Virginia University	27,740	19,582	21,633	15,662	14,430	12,099	12,708	11,516
107 Medical College of Wis	27,668	25,062	21,594	21,432	19,803	15,551	13,600	12,272
108 Florida State University	27,649	28,495	32,927	25,498	24,027	21,416	21,850	16,910
109 Temple University	26,869	28,873	26,164	25,232	20,137	18,352	18,573	18,398
110 SUNY at Albany	25,988	12,204	14,497	15,171	13,595	13,019	11,662	9,228
Total, 1st 110 insts.	9,539,859	8,764,839	8,281,229	7,738,039	7,078,292	6,354,347	5,810,305	5,243,910
111 Univ of Rhode Island	25,480e	23,980	20,511	21,940	22,967	19,289	19,933i	20,577
112 Univ of Nebraska-Lincoln	25,382	27,499	22,686	25,803	25,448	24,512	20,823	17,156
113 Univ Alabama Huntsville	24,432	21,761	21,355	18,001	11,998	7,548	4,442	3,397
114 Rensselaer Polytech Inst	24,313	23,372	22,809	19,143	18,320	14,207	12,996	11,673
115 U Tex Med Brnch Galveston	24,281	20,974	21,693	23,152	19,717	16,738	15,307i	13,876
116 Univ of South Carolina	23,743	23,084	20,587	17,596	15,655	14,537	14,116	10,805
117 U of Houston	21,881	20,140	17,575	16,358	14,152	11,040	9,680	9,245
118 Brandeis University	21,800	21,280	18,819	19,080	18,595	16,857i	15,119i	13,381
119 University of Delaware	21,629	20,053	17,588	17,083	13,708	13,662	12,578	10,626
120 Univ of New Hampshire	21,591	18,516	14,455	14,594	13,348	12,769	11,113	10,676
Total, 1st 120 insts.	9,774,391	8,985,498	8,479,307	7,930,789	7,252,200	6,505,506	5,946,412	5,365,322
121 Rice University	21,356	22,838	19,997	16,340	14,300	13,155i	12,012i	10,869
122 University of Oregon	21,002	19,311	20,151	17,286	14,573	12,783	12,918	11,423
123 Univ of Cal Santa Cruz	20,237	15,805	13,855	12,543	12,263	11,432	10,652	10,074
124 US Naval Postgrad School	20,171	19,264	17,333	15,170	15,487	12,934	13,006	12,083
125 Clemson University	18,771	16,594	14,221	12,484	13,148	9,016	7,550	9,985
126 Florida A & M University	18,698	15,592	13,110	10,509	8,674	8,100	7,683i	7,266
127 Kans St U - Ag & App Sci	18,583	15,726	15,651	15,951	14,294	13,270	12,969	10,421
128 SUNY Hlth Sci Ctr - Brkln	18,458	17,949	14,574	11,552	10,754	10,494	9,946i	9,399i
129 Loyola Univ - Chicago	18,071	14,703	6,203	6,051	4,447	3,804	3,303	2,876
130 Univ of South Florida	18,010	23,578	30,481	26,576	8,841	7,890	7,344	5,545
Total, 1st 130 insts.	9,967,748	9,166,858	8,644,883	8,075,251	7,368,981	6,608,384	6,043,795	5,455,243
131 The Medical Col of Penna	17,914	14,960	11,704	11,514	9,020	7,449	6,289i	5,129i
132 St Louis University	17,708	16,358	14,106	12,272	8,332	7,783i	7,236i	6,689i
133 Lehigh University	17,426	11,870	11,242	9,925	10,297	9,679	7,082	6,383
134 Med Univ of S. Carolina	17,174	14,367	10,910	11,547	10,956	10,797	10,297	9,087
135 Univ of Cal Riverside	17,167	16,031	15,806	15,584	16,672	15,001	14,626	13,884
136 University of Idaho	16,601	15,149	13,812	12,207	10,970	8,720	8,987	13,656
137 Unif Serv Univ of Hlth Sc	16,176	12,846	11,288	12,706	12,613	12,076	12,860	10,453
138 University of Mississippi	16,097	16,937	14,973	10,841	9,317	8,247	7,786	6,877
139 Univ of North Dakota	15,895	14,470	14,398	14,104	12,075	12,515	10,759i	9,006i
140 San Diego State Univ	15,679	16,744	14,647	13,048	12,688	11,386	6,031	5,225
Total, 1st 140 insts.	10,135,585	9,316,590	8,777,769	8,198,999	7,481,921	6,712,037	6,135,748	5,541,612
141 Auburn University	15,415	15,279	14,629	15,179	16,243	13,446	11,893	10,237
142 Oklahoma State University	15,384	15,756	17,744	14,116	12,850	9,575	8,502	11,833
143 University of Notre Dame	15,058	13,587	12,867	13,209	13,579	10,399	9,984	10,429
144 Syracuse University	14,715	14,192	18,924	20,367	22,377	17,987	15,799	12,812
145 Univ of Nevada - Reno	14,085	10,858	11,922	8,647	9,989	8,033	7,454i	6,877i
146 Howard University	13,976	10,754	13,067	12,146i	11,227i	10,308	10,258e	11,721
147 Montana State University	13,443	10,109	9,052	8,781	10,710	8,727i	6,745	7,060
148 University of Wyoming	13,298	12,782	12,207	13,804	11,136	8,701	9,321	7,452
149 New York Medical College	13,061	11,056	9,028	10,021	11,097	10,038	8,086	6,739
150 Northeastern University	12,841	9,961i	10,217	10,201	8,966	8,088	7,519	6,975
Total, 1st 150 insts	10,276,861	9,440,924	8,907,426	8,325,470	7,612,095	6,817,339	6,231,309	5,633,747

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
151 Univ of Ark Fayetteville	12,421	12,371	10,831	8,955	8,193	7,696	8,612	8,134
152 CUNY City College	12,175	11,220	10,554	9,005	8,071	7,552	6,942	6,332
153 Desert Research Institute	11,508	9,795	8,767	8,968	8,088	6,539	5,811	4,737
154 Texas Tech University	11,121	9,323	9,349	10,939	11,620	11,089	10,501	9,057
155 Univ of P R-Med Sci Cmpus	10,679	8,610	5,366	5,235	4,218	5,389	5,078	4,768
156 Univ of Nevada, Las Vegas	10,006	17,568	13,270	8,972	4,674	3,991	3,309	2,627
157 Clark Atlanta University	9,985	6,538	6,055	5,575	5,095	4,615	4,135	3,655
158 SUNY Hlth Sci Ctr - Syrcs	9,985	10,667	9,965	9,520	7,497	6,427	5,181	5,095
159 Drexel University	9,869	7,559	6,761	6,371	6,600	7,870	6,635	5,623
160 Hahnemann University	9,797	7,492	8,244	7,809	6,818	6,792	9,094	9,520
Total, 1st 160 insts.	10,384,407	9,542,067	8,996,588	8,406,819	7,682,969	6,885,299	6,296,607	5,693,295
161 U of Neb Med Ctr at Omaha	9,740	10,518	9,078	8,572	7,765	7,243	6,643	6,608
162 U of Arkansas Med Sci Cam	9,642	7,807	6,654	5,258	5,846	4,561	3,773	3,417
163 Univ of Central Florida	9,151	10,406	9,354	11,153	3,476	2,701	1,926e	1,503
164 Rush University	9,130	7,010	6,083	7,582	6,553	7,823	7,191	6,649
165 Univ of P R-Mayaguez	9,117	11,727	14,337	14,114	12,879	8,732	8,183	7,634
166 Univ of Maine Orono	8,975	10,062	9,046	8,288	7,048	7,787	8,584	10,653
167 San Jose State University	8,948	7,978	7,370	7,220	5,944	5,614	5,284	4,954
168 Boston College	8,695	8,673	6,798	5,824	5,891	4,765	4,550	4,336
169 North Dakota State Univ	8,677	7,100	6,417	5,292	4,210	2,870	1,970	2,622
170 Wright State University	8,655	8,047	7,426	5,714	5,012	3,695	3,939	2,956
Total, 1st 170 insts.	10,475,137	9,631,395	9,079,151	8,485,836	7,747,593	6,941,090	6,348,650	5,744,627
171 George Mason University	8,439	5,601	2,494	1,171	1,480	571	474	379
172 Michigan Tech University	8,242	6,870	6,045	5,210	6,226	4,757	3,969	3,901
173 College of William & Mary	8,209	7,283	6,460	5,349	4,942	4,020	4,100	4,150
174 NC Ag & Tech State Univ	8,196	8,205	7,503	5,752	5,717	3,603	4,763	4,373
175 Brigham Young University	8,106	7,082	5,357	4,785	5,660	5,020	4,128	3,237
176 Univ of South Alabama	7,769	7,798	7,237	6,966	5,273	4,715	4,866	4,652
177 Medical Col of Georgia	7,747	8,081	8,045	7,392	7,621	7,705	7,331	6,387
178 N Mex Inst Mining & Tech	7,682	6,646	5,610	7,183	5,492	8,923	7,130	5,891
179 Univ of Texas at Dallas	7,676	4,822	5,888	6,81[illegible]	7,109	7,850	6,029	5,461
180 Univ of Wis-Milwaukee	7,641	6,808	6,715	5,447	4,662	3,939	3,643	3,211
Total, 1st 180 insts.	10,554,844	9,700,591	9,140,505	8,541,903	7,801,775	6,992,193	6,395,083	5,786,269
181 Univ of Texas at El Paso	7,433	6,972	5,451	2,561	1,893	2,068	1,493	950
182 Southern Ill U-Carbondale	7,3[illegible]2	7,092	8,035	5,571	6,816	6,045	5,644	5,668
183 Mercer University	7,325	6,388	3,590	1,812	386	381	313	152
184 University of Louisville	7,267	6,750	8,637	5,953	5,438	4,517	3,227	2,744
185 University of Denver	7,236	4,799	7,476	6,825	6,453	6,742	9,518	10,265e
186 Oregon Grad Inst Sci/Tech	7,138	6,962	6,837	6,582	6,513	4,997	4,218	3,441
187 Med Col of Ohio at Toledo	7,083	5,970	5,956	5,855	4,530	5,756	5,450	5,145
188 Eastern VA Medical School	6,966	7,093	[illegible]782	6,887	5,291	2,611	2,092	1,576
189 The University of Alabama	6,877	5,427	6,941	6,542	6,376	5,139	3,455	3,242
190 Univ of Mass - Lowell	6,872	6,541	4,662	5,974	5,608	5,087	6,096	3,838
Total, 1st 190 insts.	10,626,423	9,784,585	9,205,872	8,597,465	7,851,079	7,037,536	6,436,589	5,823,290
191 Albany Medical College	6,740	6,291	6,073	7,259	7,915	8,795	8,483	8,175
192 Meharry Medical College	6,673	7,014	6,391	6,397	5,125	4,414	3,759	3,107
193 Colorado School of Mines	6,348	6,487	5,310	4,435	4,997	5,146	4,718	3,841
194 Old Dominion University	6,284	6,576	7,036	6,175	5,334	4,444	4,297	4,151
195 Morehouse School of Med	6,155	5,020	5,149	4,238	1,815	0	0	0
196 Virginia State University	6,031	5,347	2,744	2,056	2,476	2,326	2,176	2,026
197 Worcester Poly Institute	6,018	3,050	2,365	2,411	1,655	1,087	1,191	1,292
198 Chas R Drew U of Med & Sc	5,949	5,311	4,104	2,898	2,826	2,913	1,942	971
199 Kent State University	5,806	5,171	4,656	2,613	3,027	2,993	2,218	2,225
200 N J Inst of Technology	5,778	4,080	2,731	1,082	1,085	847	940	381
Total, 1st 200 insts.	10,686,205	9,818,932	9,252,431	8,637,029	7,887,334	7,070,501	6,466,313	5,849,959

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
201 CUNY Hunter College	5,687	5,524	4,531	4,065	4,223	4,373	4,031	2,950
202 Alabama A & M University	5,635	5,481	5,560	4,801	5,121	4,356	3,830i	3,304i
203 Polytechnic University	5,600	5,600	7,025	6,824	6,561	6,729	5,771	4,821
204 Stevens Institute of Tech	5,435	3,116	2,960	2,532	2,838	4,100	3,839i	3,579i
205 Catholic Univ of America	5,388	6,301	6,783	6,077	5,446	5,061	3,777	4,003
206 Northern Illinois Univ	5,384	4,617	3,251	2,948	2,360	1,897	1,870	1,793i
207 Southern Methodist Univ	5,138	5,966	11,000e	6,244	5,315	4,005	3,329i	2,654
208 Cleveland State Univ	5,042	4,528	3,695	2,760	2,047	2,019	1,645	1,498
209 University of Montana	5,024	3,692	3,468	2,771	2,925e	2,572	2,337i	2,103e
210 U of MD Baltimore County	4,893	4,723	4,147	3,457	3,626	2,743	2,437	2,250
Total, 1st 210 insts.	10,741,431	9,868,480	9,304,851	8,679,508	7,927,796	7,108,356	6,499,182	5,878,914
211 Ohio University	4,856	4,539	4,140	3,722	3,540	2,828	2,893	2,295
212 Prairie View A & M Univ	4,824	3,373	3,406	3,568	1,560e	1,334	1,824i	2,313i
213 Univ of Sthrn Mississippi	4,820	6,736	3,944	3,588	2,484	1,858	1,311	1,025
214 Univ of Missouri Rolla	4,819	4,360	3,863	3,459	3,670	4,261	3,906	4,074
215 South Dakota State Univ	4,751	4,102	3,666	3,254	3,343	3,022	3,266	492
216 SUNY at Binghamton	4,611	3,130	3,702	2,914	2,732	2,773	3,341	3,165
217 Tuskegee University	4,498	4,137	4,783	4,967	3,543	2,598	1,689i	781
218 Tennessee State Univ	4,465	3,701	3,290	3,382	3,382	2,717	2,660	2,412e
219 Florida Atlantic Univ	4,431	2,953	2,010	1,295	847	648	659	543e
220 Univ of Missouri Kan City	4,419	3,123	2,767	2,391	1,485	812	670	373
Total, 1st 220 insts.	10,787,925	9,908,634	9,340,422	8,712,048	7,954,382	7,131,207	6,521,401	5,896,387
221 Southern U - All Campuses	4,407	4,332	4,435i	3,801e	3,112	2,196	2,715	3,071
222 U of MD Center For EES	4,321	2,857	2,379	2,519	2,542	2,629	2,227	1,572
223 Clarkson University	4,229	4,229	3,841	4,359	5,141	5,253	4,676	3,296
224 Northern Arizona Univ	4,180	3,563	2,749	2,683	2,315	1,922	1,101	1,213
225 U Hlth Sci/Chcgo Med Schl	4,167	3,650	3,547	3,269	3,246	2,147	1,784	1,636
226 Illinois Inst of Tech	4,165	4,114	3,887	3,947	5,277	6,586	3,986	4,510
227 Loma Linda University	4,036	2,529	3,349	2,294	3,867	4,801	3,834i	2,867
228 Georgia State University	4,021	3,516	3,621	2,507	2,340	2,106	1,161	978
229 University of Akron	3,950	3,411	3,005	2,525	2,199	1,785	1,824	1,350
230 American University	3,926	4,426	3,532	3,480	3,623	2,980	2,425i	1,870i
Total, 1st 230 insts.	10,829,327	9,945,261	9,374,767	8,743,432	7,988,044	7,163,612	6,547,134	5,918,750
231 Jackson State University	3,849	3,429	3,381	3,624	2,801	2,040	1,862i	1,688i
232 Air Force Inst of Tech	3,813	2,243	2,200	1,800i	1,400	456	370i	285
233 East Carolina University	3,605	3,612	3,499	2,690	2,668	1,919	2,193	1,635i
234 Memphis State University	3,586	2,954	2,666	2,299	1,647	1,268	908	650
235 Wesleyan University	3,577	1,458	1,949	2,193	2,007	1,890	1,841	2,104
236 Creighton University	3,478	2,580	2,405	2,386	1,828	1,520i	1,213i	906
237 University of Toledo	3,304	2,997	2,101	1,966	1,894	1,583i	1,273	1,005
238 Univ of Tex at Arlington	3,296	2,741	1,795	1,406	2,255	1,667	955	930
239 Hampton University	3,272	3,345	2,307	2,168	--	--	--	--
240 U of MD Eastern Shore	3,096	1,371	1,552	2,203	1,736	1,522	1,606	1,414i
Total, 1st 240 insts.	10,864,203	9,971,991	9,398,622	8,766,167	8,006,280	7,177,477	6,559,355	5,929,367
241 Oakland University	3,013	2,852	1,882	2,767	2,475	3,035	2,747i	2,461i
242 Lincoln University	2,851	2,763	2,600	2,706	--	--	--	--
243 CUNY Grad Sch & Univ Ctr	2,811	2,161	2,990	2,112	1,890	1,848	1,833	1,056
244 Texas Col of Osteo Med	2,804	3,135	2,031	2,518	2,508	2,381	1,914	1,816i
245 Portland State University	2,771	2,580	2,693	1,999	1,923	1,999	1,676i	1,353
246 Texas Christian Univ	2,765	2,430	1,362	488	302	493	636	447
247 Univ. of Puerto Rico	2,626	2,860	2,980	2,855	3,662	3,217	2,927i	2,638i
248 Marquette University	2,612	2,068	1,855	1,487	1,671	1,080	965	1,274
249 Wichita State University	2,575	1,768	1,041	1,921	3,228	1,175	746	936
250 Kentucky State University	2,525	2,026	2,858	1,721	1,897	1,827	1,636i	1,446i
Total, 1st 250 insts.	10,891,556	9,996,634	9,420,912	8,786,741	8,025,436	7,194,532	6,574,435	5,942,794

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
251 SUNY Col of Env Sci & For	2,427	2,126	1,973	1,883	1,669	1,209	1,379i	1,549
252 U of the Virgin Islands	2,398e	2,519i	2,639e	2,600	2,578	1,447e	1,043	742
253 Fort Valley State College	2,384	2,047	1,938	1,741	--	--	--	--
254 Univ of Ark Pine Bluff	2,372	2,176	1,188	1,148	1,199	1,047	1,010	1,002
255 Xavier University of LA	2,365	2,424	1,902	1,294	--	--	--	--
256 S Dak Sch Mines & Tech	2,362	2,056	2,268	2,128	1,815	1,462	1,251	1,207
257 Univ of N C at Charlotte	2,208	1,226	1,327	817	483	434i	386i	338i
258 Alcorn State University	2,132	1,665	1,487	1,850	1,692i	1,623i	1,554i	1,485
259 Northeast Louisiana Univ	2,112	663	675	56	35	25	6	9
260 Florida Inst of Tech	2,080	1,640	1,251	898	552	577	656	712
Total, 1st 260 insts.	10,914,396	10,015,176	9,437,560	8,801,156	8,035,459	7,202,356	6,581,720	5,949,838
261 South Carolina St College	2,075	1,309	1,308	1,014i	721	810i	899i	988i
262 Lamar University	2,046	1,914	1,317	388	2	64	58	62
263 Texas Southern Univ	2,028	1,810	1,363	1,293	1,419	1,263i	1,107i	951
264 Univ of Mass - Boston	2,019	--	--	--	--	--	--	--
265 Univ of North Texas	1,932	1,942	1,974	2,813	2,828	3,022	2,506	2,482
266 Miami University (Ohio)	1,918	2,050	1,365	1,659	1,479i	1,301i	1,123i	945i
267 Univ of N C at Greensboro	1,800	1,666	806	596	278	370	256	320
268 CUNY Queens College	1,787	1,989	1,987	1,919	1,612	1,461i	1,312i	1,183i
269 Louisiana Tech University	1,660	1,072	2,629	2,842	760	828	745i	663i
270 University of D C	1,600	1,585	1,455	1,330i	1,205	738	1,706	1,508
Total, 1st 270 insts.	10,933,261	10,030,513	9,451,764	8,815,010	8,045,763	7,212,213	6,591,432	5,958,920
271 Ponce School of Medicine	1,573	1,347	919	782	642	602	607	11i
272 Tenn Technological Univ	1,534	949	1,286	743	731	711	606i	501
273 Bowling Green State Univ	1,496	1,602	1,882	1,770	1,475	1,037	1,338	1,060
274 Univ of Missouri St Louis	1,495	1,046	1,167	1,430	779	698	913	592
275 Illinois State University	1,470	1,241	1,193	973	1,011	854	642	624i
276 Fordham University	1,468	1,303	1,723	2,063	1,752	1,805	1,525i	1,245i
277 Langston University	1,448	1,310	1,200	1,961	--	--	--	--
278 Western Michigan Univ	1,436	845	585	488i	391	227	306	196
279 Univ of Mass - Dartmou	1,425	--	--	--	--	--	--	--
280 University of Tulsa	1,369	1,264	1,037	926	911	823i	736i	649
Total, 1st 280 insts.	10,947,973	10,041,420	9,462,756	8,826,146	8,053,655	7,218,970	6,598,105	5,963,798
281 Inst Paper Sci and Tech	1,317	1,408	965	1,382	1,049	1,469	867	658
282 Wentworth Inst of Tech	1,287	1,460	1,435	1,383	1,457	1,431i	1,405i	1,379i
283 Calif St Poly Univ Pomona	1,258	997	366	362	503	422i	345i	268i
284 Delaware State College	1,253	915	920	920	--	--	--	--
285 Univ of Wis-Superior	1,243	1,402	1,550	1,495	1,309	1,414	1,253	1,243
286 Fisk University	1,235	616	1,156	1,131	1,379	777	661i	545i
287 Morris Brown College	1,217e	442	464e	164	--	--	--	--
288 Morehouse College	1,214	917	868	997	--	--	--	--
289 Morgan State University	1,179	683	655	638	742e	346	860	751i
290 Univ of Wis-Stout	1,174	1,173	121	39	82	63i	48i	33i
Total, 1st 290 insts.	10,960,360	10,051,433	9,471,256	8,834,657	8,059,976	7,224,892	6,603,544	5,968,675
291 SUNY College Buffalo	1,157	1,000	520	583i	641i	699i	757i	815i
292 Clark University	1,121	936	919	794	820	942	1,139i	1,332i
293 U Ctrl Del Caribe Esc Med	1,100	617	546	640	525	577	809	165
294 Univ of Southwestern LA	1,007	929	874	818	863	589	518i	448
295 Texas A & I University	996	664	661	1,118	847	742i	640i	538i
296 University of the Pacific	995	1,039	997	990	941i	894i	847i	800i
297 Univ of South Dakota	981	759	940	784	685	645i	605i	565i
298 Nova University	974	1,395	1,341	981	839	779	632i	486
299 Lincoln University (PA)	953	437	632	692e	789	591i	394i	197i
300 NE Ohio Univ Med School	936	724	708	811	719	612	681	673
Total, 1st 300 insts.	10,970,570	10,059,933	9,479,294	8,842,868	8,067,645	7,231,962	6,610,566	5,971,694

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
301 Amherst College	933	1,132	1,233	1,047	1,091	1,015i	942i	869i
302 Central State University	930	680	2,323	449	--	--	--	--
303 SUNY College Plattsburgh	924	1,027	930	755	912	742	469	278
304 Occidental College	908	381	300	442	376	334i	296i	258i
305 East Tennessee State Univ	886	1,060	1,219	919	447	486	427i	368
306 Villanova University	882	708	943	885	223	459	366i	274
307 CUNY York College	872	622	655	754	673	559	634i	708
308 Barnard College	869	540	546	665	587	542i	499i	456i
309 Bryn Mawr College	801	976	1,252	536	687	696	435	427
310 Rust College	798	271	156	214	--	--	--	--
Total, 1st 310 insts.	10,979,373	10,067,330	9,488,851	8,849,534	8,072,641	7,236,795	6,614,634	5,978,332
311 Selma University	798	650	790	816	--	--	--	--
312 Bennett College	784	62	358	229	--	--	--	--
313 Norfolk State University	769	726	825	648	400	266	456	588
314 St John's University (NY)	743	528	519	36\	308	290i	274i	258e
315 Idaho State University	742	532	549	378	226	268	341	307
316 Canisius College	734	221	524	194	279	243i	211i	179i
317 Central Michigan Univ	734	110	60	179	276	134	110	0
318 Benedict College	702	0	0	0	--	--	--	--
319 Tougaloo College	702	684	566	787	--	--	--	--
320 North Carolina Cntrl Univ	683	441i	199	422e	350	317i	286i	255i
Total, 1st 320 insts.	10,986,764	10,071,284	9,493,241	8,853,548	8,074,480	7,238,313	6,616,312	5,979,919
321 Eastern Washington Univ	669	791	1,061	738	532	488	559	519
322 Baylor University	635	324	369	346	353	329	263i	200i
323 Albany State College	627	536	516	653	348	263e	207i	152i
324 Marshall University	623	883	1,244	1,647	1,484	901	818	836
325 Augsburg College	620	382	139	115	90	80i	71i	62i
326 CUNY Col Staten Island	615	634	576	579	371	334i	301i	268i
327 DePaul University	594	507	623	772	468	189	142i	96e
328 Bethune Cookman College	590	548	494	420	--	--	--	--
329 Texas Woman's University	583	486	476	325	243	173	209	211
330 Winston-Salem State Univ	583	617	532	650	--	--	--	--
Total, 1st 330 insts.	10,992,903	10,076,972	9,499,271	8,859,793	8,078,369	7,241,070	6,618,882	5,982,263
331 Cal Poly St U San Luis Ob	579	534	496	475	653	586i	523i	460i
332 Univ of West Florida	569	468	213	327	436	709i	982i	1,255i
333 Knox College	550	358	298i	239	164	145i	126i	107i
334 Univ of Nebraska at Omaha	540	294	187	62	56	75	24	1
335 Spelman College	514	358	348	272	--	--	--	--
336 Alabama State University	502	442	403	456	--	--	--	--
337 Indiana State University	498	307	314	340	340	184	203	234i
338 Santa Clara University	459	408	550	672	712	746e	642	843
339 Baylor Col of Dentistry	437	696	682	641	525	450	407	198
340 Bowie State University	425	234	35	0	--	--	--	--
Total, 1st 340 insts.	10,997,976	10,081,071	9,502,797	8,863,277	8,081,255	7,243,965	6,621,789	5,985,361
341 Univ of Wis-Parkside	413	362	581	651	497	465i	433i	401i
342 Alfred University	403	320	344	449	285	382	349	435
343 Kirksville Col Osteo Med	392	254	198	306	517i	727	641i	562i
344 New Sch For Soc Research	376	344	293	251	384	422	298i	174i
345 Pomona College	358	263	266	370	358	435i	512i	589i
346 Elizabeth City State Univ	339	0	15	26	--	--	--	--
347 Ball State University	330	226	153	178	197	317	293	272
348 University of Detroit	318	309	245	55	34	82i	129i	176i
349 Univ of Wis-La Crosse	315	258	185	108	79	116	70	227
350 Phila Col Osteopathic Med	314	198i	83	302	179	168	71	35i
Total, 1st 350 insts.	11,001,534	10,083,605	9,505,160	8,865,973	8,083,785	7,247,079	6,624,585	5,988,232

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
351 Smith College	312i	291i	298	903	411	375i	339i	303i
352 Stephen F Austin St Univ	292	282	289	332	283	233	308i	382i
353 Phila Col of Pharm & Sci	279	388	381	288	49	47	83	58
354 Union College (NY)	279	261i	247i	233i	219i	205i	191i	177
355 Johnson C. Smith Univ	276	454	467	480	--	--	--	--
356 Univ of Wis-River Falls	268	118	27	43	35	28i	23i	18i
357 Cal Sch Prof Psych-Fresno	252	208	985	1,566	940	476	238i	0
358 SUNY College Geneseo	245	135	200	151	173	142i	111i	80i
359 Claflin College	240	381	203	0e	--	--	--	--
360 Univ of Wis-Stevens Point	234	128	167	226	180	208i	236i	264i
Total, 1st 360 insts.	11,004,211	10,086,231	9,508,424	8,870,195	8,086,075	7,248,793	6,626,114	5,989,514
361 CUNY Bernard Baruch Col	223	344	207	287	125	125i	125i	125i
362 Grambling State Univ	222i	200i	182	108	64	128	131i	132i
363 Sam Houston State Univ	220	229	93	84	73	115	114	95
364 Univ of Wis-Oshkosh	213	280	238	161	147	127i	109i	91i
365 Hofstra University	211	418	445	256	91	215	201	210
366 Oakwood College	206	179	226	0	--	--	--	--
367 Duquesne University	202	250	216	68	68	68	54i	45i
368 University of Portland	198	121	311	0	200	160i	120i	80i
369 Savannah State College	195	212	221	179	--	--	--	--
370 SUNY College Oswego	188	75	71	76	58	236	229i	223
Total, 1st 370 insts.	11,006,289	10,088,539	9,510,634	8,871,412	8,086,901	7,249,967	6,627,197	5,990,515
371 Fayetteville State Univ	187	275	154	258	--	--	--	--
372 Univ of Wis-Green Bay	184	198	267	252	165	212i	258i	304i
373 St Olaf College	179	142	151	97	153	166i	178i	190i
374 Univ of Wis-Eau Claire	178	126	268	355	254	218i	182i	146i
375 West Virginia State Col	172	210	138	75	--	--	--	--
376 SUNY College Brockport	165	425	297	230	155	144i	135i	126i
377 Seton Hall University	164i	153i	183i	213i	243i	273i	303i	333i
378 Abilene Christian Univ	162	125	103	89	66	56i	47i	38i
379 SUNY St Coll of Optometry	160	118	294	292	286	398	344i	292i
380 Univ of Northern Colorado	158	91	54	66	0	10	0	0
Total, 1st 380 insts.	11,007,998	10,090,402	9,512,543	8,873,339	8,088,223	7,251,444	6,628,644	5,991,944
381 Chicago Col of Osteo Med	149	175	318	314	526	419	119	101
382 Long Island University	142	20	57	191	346	247	64	11
383 Monmouth College (NJ)	141e	135	46	100	0	0i	0i	0i
384 Columbia U Teachers Col	138	95	181	230	186	460	367i	274i
385 Philander Smith College	136	154	120	154	--	--	--	--
386 Montclair State College	128	4	0	0	8i	9i	10i	11i
387 Kutztown Univ of Penn	126	43	37	37	31	35i	39i	43i
388 SUNY College Fredonia	116	27	59i	90i	121	101i	83i	65i
389 SUNY College Cortland	113	88	75	102	78	67i	58i	49i
390 Univ of Northern Iowa	108	58	136	108	91	74i	59i	44i
Total, 1st 390 insts.	11,009,295	10,091,201	9,513,572	8,874,885	8,089,610	7,252,856	6,629,443	5,992,542
391 Coppin State College	103	212	387	388	--	--	--	--
392 East Stroudsburg U of PA	100	120	0	165	107	90i	75i	60i
393 Andrews University	98	101	98	24	23e	20i	19i	18i
394 Jarvis Christian College	97	60	75	60	--	--	--	--
395 Adelphi University	89	152	216i	280	192i	105	138i	169i
396 Antioch University	87	0	0	0	0	1i	2i	3i
397 Milwaukee School of Eng	87	0	0	0	0	0i	0i	0i
398 SUNY College Potsdam	74	11	22	27	11	25i	33i	41i
399 Southern Oregon St Col	72	56	43	56	0	0	0	2
400 Miss Valley State Univ	71	64	43	14	31	0	0i	0i
Total, 1st 400 insts.	11,010,173	10,091,977	9,514,454	8,875,879	8,089,974	7,253,097	6,629,710	5,992,835

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
401 SUNY College New Paltz	71	153	112	54	1	103	85[1]	67[1]
402 Catholic U of PR	68	214	265	492	416	513	508[1]	504[1]
403 Univ of Wis-Whitewater	65	31	42	107	37	28[1]	21[1]	14[1]
404 Drake University	63	61	3	12	21	26[1]	30[1]	34[1]
405 Knoxville College	63[1]	47[1]	55[1]	50	--	--	--	--
406 Colorado College	59	34	5	0	0	11[1]	16[1]	21[1]
407 Northeast Missouri St U	52	26	18	122	38	50	25[1]	0
408 Cal Sch Prof Psych-L A	50	245	1,163	1,383	322	164	164	0
409 Providence College	47	65	0	0	0	0	0[1]	0
410 Mayo Foundation	45	0	0	0	0	0	0[1]	0[1]
Total, 1st 410 insts.	11,010,758	10,092,853	9,516,117	8,877,899	8,090,809	7,253,992	6,630,559	5,993,475
411 Seattle University	43	88	52	74	64	0	5[1]	10[e]
412 Fuller Theological Sem	40	0	0	3	0	0	9	0
413 Sul Ross State University	38	71	171	98	107	98[1]	87[1]	78[1]
414 Goucher College	29	54	32	27	25	33[1]	37[1]	41[1]
415 Pacific Lutheran Univ	25	33	244	10	35	43[1]	44[1]	45[1]
416 West Texas State Univ	16	12	40	120	124	177	66	76
417 Claremont Univ Ctr & Grad	15	66	47	106	337	343	354[1]	364[1]
418 Tarleton State University	12	370	66	0	0	0	0[1]	0[1]
419 Arkansas State University	8	23	119	83	46	61[1]	73[1]	85[1]
420 Shaw University	6	0	0	0	--	--	--	--
Total, 1st 420 insts.	11,010,988	10,093,570	9,516,910	8,878,420	8,091,547	7,254,745	6,631,234	5,994,174
421 Fairleigh Dickinson Univ	2	370	2,364	2,355	3,274	2,402	1,501	1,007
422 SUNY College Oneonta	1[e]	1	22	0	0	17[1]	31[1]	45[1]
423 Bemidji State University	0[1]	0	0	11	14	8[1]	6[1]	4[1]
424 Biola University	0	0	0	0	0	0	0	0
425 Cal Sch Prof Psych-Berkly	0	0	0	0	0	0	0	0
426 Cal Sch Prof Psych-S D	0	0	0[1]	0	0	0	0[1]	0
427 Calif St Univ Stanislaus	0	0	0	0	0	0[1]	0[1]	0[1]
428 Chapman University	0	36[1]	72	75[e]	75	60[1]	45[1]	36[1]
429 Cheyney University of PA	0	0	0	0[e]	--	--	--	--
430 Col Osteo Med of Pacific	0	0	0	0	0	0	0	0
Total, 1st 430 insts.	11,010,991	10,093,977	9,519,368	8,880,861	8,094,910	7,257,232	6,632,820	5,995,268
431 Dillard University	0	0	0	0	0	0	0[1]	0[1]
432 East Texas State Univ	0	85	113	89	1	12	8	0
433 Fielding Institute	0	0	0	0	0	0	0	0
434 Grand Valley State Univ	0	0	0	7	0	5[1]	10[1]	15[1]
435 Institute of Textile Tech	0	0	0	0	0	0	0[1]	0[1]
436 Mass Col Phar/Allied Hlth	0	0	0[1]	0	5[1]	9[1]	13[1]	17[1]
437 New York Inst Technology	0[1]	0[1]	0	0	352	373	442[1]	510
438 Northeastern Ill Univ	0	22	66	26	0	13[1]	22[1]	31[1]
439 Northwestern St Univ La	0	0	0	0	0	2[1]	3[1]	4[1]
440 Oral Roberts University	0	0	0	290	388	378[1]	369[1]	360
Total, 1st 440 insts.	11,010,991	10,094,084	9,519,549	8,881,273	8,095,658	7,258,024	6,633,687	5,996,203
441 Paul Quinn College	0	0	0	0	--	--	--	--
442 RAND Grad Schl Pol Studies	0	0	0	0	0	0	0[1]	0
443 Slippery Rock Univ of PA	0	0	0	0	0	0[1]	0[1]	0[1]
444 St Bonaventure University	0	0	0	0	0[1]	0	0[1]	0[1]
445 St Louis Community Col	0	0	0	0	0	0[1]	0[1]	0[1]
446 Stillman College	0	0	0	0	--	--	--	--
447 Talladega College	0	0	0	350	--	--	--	--
448 The Wright Institute	0	0	0	0	0	0	0	199[1]
449 Trenholm State Tech Col	0	100	5	5	--	--	--	--
450 U of California System	0	0	0	0	473	528	547	524
Total, 1st 450 insts.	11,010,991	10,094,184	9,519,554	8,881,628	8,096,129	7,258,552	6,634,234	5,996,926

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Federally financed							
	1992	1991	1990	1989	1988	1987	1986	1985
451 US International Univ	0	0	88	61	0	0	0	0i
452 Union Institute	0	0	0	0	0	0	0i	0i
453 Univ Osteo Med & Hlth Sci	0	0	43	86	88	0	0i	0i
454 Univ of Health Sciences	0	0	0	0	0	0	0i	0i
455 Univ of Missouri Sys Off	0	20	116	678	756	858	759	627
456 Univ of Wis-Platteville	0	1	0	0	0	1i	1i	1i
457 Voorhees College	0	0	0	0	--	--	--	--
458 W VA Schl Osteopathic Med	0	14	23	30	22	11	5i	0
459 Wiley College	0	0	0	0	--	--	--	--
460 Xavier University	0	0i	0	0	0	45i	88i	131i
Total, 1st 460 insts.	11,010,991	10,094,219	9,519,824	8,882,483	8,096,995	7,259,467	6,635,087	5,997,685
Total, all other sampled insts.	0	67,665	57,386	57,220	94,526	82,103	75,233	65,491
Estimated total non-sampled insts.	76,041	64,220	60,275	57,105	0	0	0	0

1/ Johns Hopkins University includes Applied Physics Laboratory with $448 million in federally financed R&D expenditures.

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-34. Non-Federal R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Non-Federal							
	1992	1991	1990	1989	1988	1987	1986	1985
Total, all institutions	7,792,672	7,411,523	6,696,916	6,022,196	5,271,275	4,810,365	4,216,628	3,623,244
1 Texas A & M University	192,472	190,278	179,799	157,122	140,998	144,421	131,416e	113,553e
2 University of Michigan	169,607	157,306	130,122	108,030	89,315	87,332	69,790	57,566
3 Univ of Wis-Madison	152,890	142,837	130,979	116,530	109,034	104,828	92,315	84,436
4 University of Minnesota	151,100	166,584	148,236	125,734	116,326	113,378	101,435	85,546
5 Univ of MD College Park	136,572	128,566	99,612	90,586	80,166	71,045	57,881	52,540
6 Univ of Cal Berkeley	135,591	117,777	99,344	85,596	69,807	66,445	56,412	53,121
7 Pennsylvania State Univ	126,428	121,604	120,270	105,284	82,424	72,641	63,858	43,097
8 University of Ill Urbana	122,884	124,632	108,466	96,192	87,760	84,262	74,951	59,027
9 Cornell University	118,981	136,057	128,895	128,749	117,997	109,367	90,740	83,907
10 Univ of Cal Davis	117,964	120,703	120,651	107,579	91,220	87,176	75,239	67,210
Total, 1st 10 insts.	1,424,489	1,408,344	1,266,374	1,119,402	985,047	940,895	814,037	700,003
11 University of Georgia	116,317	117,973	112,878	103,156	97,989	89,181	79,561	62,850
12 University of Arizona	116,087	111,908	102,713	93,586	82,155	73,702	62,817	54,071
13 Rutgers the St Univ of NJ	105,464	102,513	97,008	88,678	75,946	67,377	55,835	35,445
14 Ohio State University	105,351	106,377	99,691	96,001	85,517	64,891	56,205	50,110
15 Univ of Texas at Austin	103,931	123,851	118,610	99,026	82,626	80,536	70,172	61,628
16 Louisiana State Univ Sys	103,203	90,567	87,047	82,243	79,120	70,981	63,901	64,194
17 Stanford University	102,293	71,722	43,690	47,344	44,932	36,499	31,096	26,762
18 Univ of Cal San Francisco	93,501	77,764	63,021	59,540	55,542	52,134	42,091	35,733
19 N C State Univ at Raleigh	92,507	95,712	87,348	85,658	76,030	68,985	61,844	59,767
20 Univ of Cal Los Angeles	90,211	82,148	82,353	68,826	62,392	58,068	46,490	40,055
Total, 1st 20 insts.	2,453,354	2,396,879	2,160,731	1,945,460	1,727,296	1,603,049	1,384,039	1,190,618
21 Iowa St U of Sci & Tech	87,436	91,864	82,227	74,346	69,420	58,669	55,266	51,246
22 Mass Inst of Technology	86,481	81,234	77,954	72,017	60,165	57,631	56,629	53,031
23 Baylor Col of Medicine	82,264	82,332	79,329	65,345	45,989	40,345	22,264	21,448
24 VA Polytech Inst & St U	79,713	77,390	75,474	65,669	56,184	48,423	45,191	38,316
25 Georgia Institute of Tech	78,988	75,253	73,351	76,616	64,253	57,210	47,025	40,096
26 Harvard University	78,494	73,925	66,722	66,068	57,426	49,119	42,887	34,507e
27 University of Connecticut	78,043	77,638	74,455	63,144	50,677	44,691	38,145	36,211
28 UT MD Anderson Cancer Ctr	77,629	76,674	62,394	56,911	48,513	43,255	42,014	36,729
29 Michigan State University	75,842	71,603	68,766	69,715	66,549	66,821	53,136	45,910
30 Northwestern University	72,734	82,091	70,968	61,481	48,510	39,634	33,423	30,020
Total, 1st 30 insts.	3,250,958	3,176,883	2,892,371	2,616,772	2,288,982	2,108,847	1,820,019	1,576,132
31 University of Florida	72,599	73,480	75,064	65,039	52,392	54,934	48,776	49,267
32 Purdue University	72,038	68,515	65,915	60,344	54,634	50,829	45,651	40,324
33 Univ of Missouri Columbia	69,195	69,285	63,759	51,743	46,195	40,962	37,585	32,188
34 Johns Hopkins Univ	68,846	68,856	69,064	58,211	48,007	34,606	28,130	31,577
35 Univ of Nebraska-Lincoln	66,045	60,030	54,912	42,478	35,340	31,554	34,335	30,653
36 Duke University	62,936	49,353	34,655	32,054	27,728	21,631	15,952	12,462
37 Univ of Pennsylvania	62,850	53,770	55,643	49,934	44,138	47,149	46,821	37,504
38 University of Oklahoma	62,413	53,991	41,774	36,936	33,721	30,897	23,085	25,061
39 Univ of Cal San Diego	62,271	60,971	54,477	45,512	40,694	40,296	32,804	29,918
40 Univ of MD Balt Prof Sch	59,742	56,481	44,848	39,884	35,685	31,687	15,199	12,359l
Total, 1st 40 insts.	3,909,891	3,791,615	3,452,482	3,098,907	2,707,516	2,493,392	2,148,337	1,877,445
41 Univ. Of Tennessee System	59,193	64,843	58,000	55,451	50,282	45,609	37,541	33,370
42 Clemson University	58,808	53,642	52,443	44,215	36,227	37,479	31,413	22,361
43 Oklahoma State University	55,834	51,736	47,941	39,539	43,766	37,845	37,417	37,261
44 University of Washington	55,474	53,299	41,960	39,259	30,474	41,878	44,599	28,132
45 Yale University	54,224	44,387	35,744	32,304	29,236	28,875	28,472	18,323
46 Univ of Ill Chicago	53,783	47,317	41,300	40,041	35,662	30,131	24,737	22,377
47 Univ of Southern Cal	53,027	43,365	45,368	43,008	37,394	33,246	23,493	20,857
48 University of Kentucky	52,416	49,501	45,347	42,522	41,279	28,781	32,034	30,890
49 Auburn University	51,368	54,634	52,166	38,635	34,494	34,599	36,037	26,042
50 SUNY at Buffalo	50,800	44,496	42,314	35,838	27,536	19,262	17,096	14,185
Total, 1st 50 insts.	4,455,028	4,298,835	3,915,085	3,509,719	3,073,868	2,831,097	2,461,178	2,131,243

See explanatory information and SOURCE at end of table.

Table B-34. Non-Federal R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Non-Federal							
	1992	1991	1990	1989	1988	1987	1986	1985
51 Univ of South Florida	50,703	49,370	45,923	34,397	31,555	30,743	4,363	3,641
52 Oregon State University	47,834	45,100	40,144	42,243	40,076	36,012	36,861	33,651
53 Univ of NC at Chapel Hill	47,775	39,196	30,645	28,817	24,316	21,225	20,829	20,212
54 Indiana University	47,694	40,630	32,036	23,459	21,028	21,130	19,136	17,269
55 University of Iowa	47,058	43,051	36,732	31,629	30,182	21,931	21,099	16,864
56 Washington State Univ	46,867	42,987	39,972	32,476	29,958	27,591	26,277	25,311
57 Washington University	46,476	47,989	45,490	31,590	28,986	25,662	21,827	19,183
58 Univ. of Colorado	46,372	41,458	38,329	34,575	31,974	29,132	29,689	24,057
59 Wayne State University	45,558	39,414	33,967	31,354	27,793	22,408	17,800	12,259
60 Univ of Med & Dent of N J	45,413	42,019	38,604	26,468	20,178	15,233	14,482	8,768
Total, 1st 60 insts.	4,926,778	4,730,049	4,296,927	3,826,727	3,359,934	3,082,164	2,673,539	2,312,458
61 University of Kansas	43,012	39,563	34,358	30,691	26,843	27,662	26,016	21,290 I
62 Unif Serv Univ of Hlth Sc	42,995	34,250	24,792	14,356	3,378	0	100	83
63 University of Virginia	41,952	35,673	38,014	30,067	27,090	22,594	18,931	16,501
64 UT SW Medical Ctr-Dallas	40,764	36,765	30,954	28,666	22,035	17,525	14,115	12,584
65 Carnegie-Mellon Univ	40,723	37,740	35,651	36,556	31,042	29,946	30,214	22,626
66 Univ of Cal Riverside	40,369	41,213	39,086	37,629	36,311	36,157	33,255	30,369
67 University of New Mexico	40,038	37,203	32,279	29,036	22,867e	20,668e	14,046	12,541
68 Kans St U - Ag & App Sci	39,140	37,284	34,660	31,351	28,880	27,317	27,739	26,812
69 Tulane University	38,886	35,068	28,076	21,100	18,892	16,557	16,451	13,673
70 Princeton University	38,236	39,667	39,955	35,736	29,646	21,584	15,590	15,135
Total, 1st 70 insts.	5,332,893	5,104,475	4,634,752	4,121,917	3,606,918	3,302,174	2,869,996	2,484,072
71 Rockefeller University	37,270	37,331	38,457	32,753	31,136	28,777	27,478	29,112
72 Arizona State University	36,198	37,243	33,259	22,196	20,504	24,754	20,039	16,397
73 University of Pittsburgh	36,173	30,390	27,016	30,048	26,147	22,123	18,254	15,082
74 Mississippi State Univ	36,008	38,584	37,066	35,976	31,449	28,018	31,032	30,225
75 Univ of Alaska Fairbanks	35,815	33,097	33,675	30,042	26,415e	25,909 I	25,401 I	24,893 I
76 Univ Alabama Birmingham	35,452	37,000	36,117	32,462	22,661	18,158	14,064	8,137
77 New York University	35,318	30,210	27,755	23,308	23,126	22,798	23,686	23,329
78 SUNY at Stony Brook	35,298	31,813	26,325	29,729	25,393	14,548	18,948e	15,549
79 Case Western Reserve Univ	35,004	27,809	22,869	17,536	18,225	17,270	10,498e	9,416
80 Utah State University	34,872	32,405	27,485	27,495	24,510	19,234	19,537	15,810
Total, 1st 80 insts.	5,690,301	5,440,357	4,944,776	4,403,462	3,856,484	3,523,763	3,078,935	2,672,022
81 Univ of Cal Irvine	33,944	29,871	25,582	20,314	17,206	13,553	11,651	9,686
82 U Tex Med Brnch Galveston	33,391	24,112	18,917	15,585	13,330	7,613	8,005 I	8,397
83 Univ of Hawaii-Manoa	32,574	33,309	33,860	30,159	25,718	22,873	22,061	19,139
84 Univ of Ark Fayetteville	32,347	28,460	26,132	23,887	19,911	19,739	19,954	16,402
85 Emory University	31,504	31,354	30,407	18,216	17,228	22,191	18,296	4,570
86 Univ of South Carolina	30,617	32,007	26,890	22,825	16,181	15,121	14,246	11,960
87 Univ of Mass - Amherst	29,582	--	--	--	--	--	--	--
88 University of Rochester	29,579	24,903	23,367	22,948	21,528	21,276	19,885	22,586
89 University of Utah	29,100	25,852	26,721	21,521	18,406	13,988	9,050	8,790
90 Colorado State University	28,366	24,785	23,223	17,779	14,769	13,658	12,767	15,469
Total, 1st 90 insts.	6,001,305	5,695,010	5,179,875	4,596,676	4,020,761	3,673,755	3,214,850	2,789,021
91 University of Idaho	27,539	24,258	21,124	19,672	19,108	15,350	14,081	6,804
92 University of Delaware	27,341	24,643	22,531	20,111	18,315	18,019	16,220	12,979
93 Temple University	27,052	26,048	23,285	20,250	20,804	17,661	14,037	8,270
94 University of Cincinnati	26,801	33,153	29,495	29,233	24,493	21,760	16,610	17,785
95 Rensselaer Polytech Inst	26,456	26,734	24,071	19,662	18,191	10,969	8,237	7,456
96 North Dakota State Univ	25,789	24,835	6,051	5,141	4,428	16,638	15,567	14,825 I
97 Texas Tech University	25,748	25,671	24,775	22,987	17,754	17,301	14,825	9,531
98 West Virginia University	24,742	30,104	24,985	21,907	14,377	13,577	10,668	9,948
99 Columbia Univ Main Div	24,739	31,105	26,499	25,433	21,418	16,866	16,980	16,457
100 CUNY Mt Sinai Sch of Med	24,708	24,275	20,145	19,623	16,875	15,113	14,027	13,753
Total, 1st 100 insts.	6,262,220	5,965,836	5,402,836	4,800,695	4,196,524	3,837,029	3,356,102	2,906,827

See explanatory information and SOURCE at end of table.

Table B-34. Non-Federal R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Non-Federal							
	1992	1991	1990	1989	1988	1987	1986	1985
101 U Tex Hlth Sci Ctr S Anto	24,131	18,998	16,232	13,177	12,145	12,007	10,386	10,148
102 Univ of Nevada - Reno	23,461	18,445	9,527	9,494	7,878	7,138	5,660i	4,180i
103 Virginia Commonwlth Univ	23,298	20,634	21,124	17,042	11,801	11,234	11,487	8,405
104 U of Houston	23,076	22,152	20,403	17,871	12,651	13,338	12,373	6,766
105 Florida State University	22,529	25,316	30,006	29,747	26,652	25,004	22,329	18,059
106 University of Miami	22,309	27,132	26,200	27,197	21,812	27,106	27,623	25,218
107 Georgetown University	22,278	18,857	14,774	16,246	14,117	11,504	9,360	10,991
108 U of Neb Med Ctr at Omaha	21,824	17,340	8,766	8,719	6,919	5,249	5,116	3,654
109 New Mexico State Univ	21,028	21,214	16,600	15,270	17,520	20,768	18,523	16,963
110 Montana State University	20,976	20,169	18,598	17,187	14,517	14,366i	14,215	12,643
Total, 1st 110 insts.	6,487,130	6,176,093	5,585,064	4,972,645	4,342,536	3,984,743	3,493,174	3,023,854
111 University of Chicago	20,941	19,606	21,628	18,970	17,574	15,990	14,722	12,979
112 Southern Ill U-Carbondale	20,712	21,248	17,838	16,786	13,494	12,609	13,170	12,703
113 U Tex Hlth Sci Ctr Houstn	20,019	21,118	16,690	17,360	15,687	10,431	9,960	7,543
114 Yeshiva University	19,044	18,890	18,902	16,272	16,560	14,005	13,338	10,862
115 SUNY Hlth Sci Ctr - Brkln	18,613	14,875	8,299	8,971	7,620	6,514	5,611i	4,708i
116 Univ of Central Florida	18,478	31,529	21,264	19,838	7,831	6,870i	5,909e	4,611
117 Univ of Mass - Worcester	17,929	--	--	--	--	--	--	--
118 Brown University	17,729	13,932	9,844	9,058	6,406	6,086	6,573	5,699
119 N Mex Inst Mining & Tech	17,526	17,413i	17,301	15,106	14,865	14,786	9,666	7,318i
120 Syracuse University	17,430	16,414	14,887	15,176	11,266	12,361	11,490	11,528
Total, 1st 120 insts.	6,675,551	6,351,118	5,731,717	5,110,182	4,453,839	4,084,395	3,583,613	3,101,805
121 Vanderbilt University	17,190	9,738	8,315	9,067	15,945	12,246	10,446	9,471
122 Rush University	17,054	20,349	15,201	14,159	13,274	8,519	6,778	4,644
123 Boston University	17,024	14,715	13,192	9,923	9,587	8,893	7,768	5,878
124 University of Wyoming	16,883	10,227	10,624	9,506	9,293	8,615	9,342	8,623
125 U of VT & State Agr Coll	16,785	15,681	14,607	14,208	11,276	9,258	9,851	8,649
126 Univ of Cal Santa Cruz	16,176	15,815	12,492	11,108	9,900	10,790	7,166	7,326
127 Univ of P R-Mayaguez	16,121	16,170i	16,218	15,229	14,212	15,759	14,545i	13,333i
128 SUNY Col of Env Sci & For	16,029	16,923	16,698	15,338	11,248	10,481	9,870i	9,259
129 Medical College of Wis	15,911	15,384	13,028	13,519	13,428	14,667	7,756	7,587
130 Oregon Hlth Sciences Univ	15,765	12,764	14,179	10,935	11,269	10,683	8,177	6,857
Total, 1st 130 insts.	6,840,489	6,498,884	5,866,271	5,233,174	4,573,271	4,194,306	3,675,312	3,183,432
131 The University of Alabama	15,696	15,821	14,547	11,853	9,460	8,223e	7,766	4,557
132 Univ of Rhode Island	15,362e	14,862	15,335	14,279	12,973	8,080	7,872i	7,664
133 N J Inst of Technology	15,348	12,383	12,494	10,320	7,242	9,571	7,609	3,213
134 San Diego State Univ	15,004	11,826	7,877	7,076	6,682	5,587	3,927	2,818
135 Dartmouth College	14,877	15,067	13,602	11,230	9,834	9,383	7,251i	5,139i
136 Med Univ of S. Carolina	14,726	11,510	12,218	11,470	9,993	8,861	8,981	4,590
137 Lehigh University	14,396	16,042	16,013	16,079	16,792	15,214	13,212	11,175
138 Univ of Maine Orono	14,238	17,020	14,559	11,686	10,293	9,165	10,731	9,988
139 U of MD Center For EES	14,236	13,348	13,273	11,222	10,140	9,400	7,515	2,747
140 Medical Col of Georgia	13,679	4,001	4,007	3,971	2,304	2,348	1,992	1,621
Total, 1st 140 insts.	6,998,051	6,630,764	5,990,196	5,342,360	4,668,984	4,280,118	3,752,198	3,236,924
141 Brandeis University	13,429	12,557	12,062	11,516	8,023	6,954i	5,887i	4,820
142 Drexel University	13,315	12,146	13,318	11,612	9,445	7,933	7,612	6,194
143 Univ of Cal Santa Barbara	13,230	12,946	11,877	10,840	10,393	9,848	9,196	6,924
144 California Inst of Tech	12,535	14,706	15,153	14,564	13,780	15,479	15,068	9,005
145 Thomas Jefferson Univ	12,468	9,966	8,518	8,094	7,465	6,287	5,095	4,740
146 Wake Forest University	12,414	10,829	9,472	8,645	7,542	4,824	4,208i	3,594i
147 Univ of New Hampshire	12,153	11,075	11,539	9,126	8,747	6,932	7,150	6,096
148 Loyola Univ - Chicago	12,028	7,999	6,057	5,252	3,880	3,319	3,072	2,488
149 George Washington Univ	11,177	6,076	5,555	5,084	3,634	4,178	3,348i	2,518
150 Univ of Wis-Milwaukee	10,926	10,057	8,924	7,981	7,762	7,140	6,740	5,857
Total, 1st 150 insts.	7,111,726	6,739,121	6,092,671	5,435,054	4,749,655	4,353,012	3,819,574	3,291,160

See explanatory information and SOURCE at end of table.

Table B-34. Non-Federal R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	Non-Federal							
	1992	1991	1990	1989	1988	1987	1986	1985
151 Univ of Missouri Rolla	10,800	10,072	10,422	14,233	15,153	10,451	10,121	6,318
152 College of William & Mary	10,681	11,225	11,332	10,045	3,089	2,674	1,823	5,638
153 Univ of Tex at Arlington	10,600	10,146	3,934	5,658	5,415	4,093	3,995	2,230
154 University of Akron	10,487	9,994	7,367	7,203	4,915	5,405	3,536	2,246
155 University of Louisville	10,133	10,102	7,284	8,513	17,507	18,449	11,555	3,659
156 Ohio University	9,955	8,257	8,842	7,739	7,323	5,720	5,198	3,516
157 Michigan Tech University	9,937	12,797	9,992	9,976	8,095	7,899	8,417	7,748
158 SUNY at Albany	9,868	8,376	7,537	9,069	6,030	5,796	4,771	3,788
159 Univ of Southwestern LA	9,808	9,303	7,445	5,999	4,229	4,428	4,177i	3,926
160 San Jose State University	9,378	4,122	2,716	2,268	4,160	3,737i	3,314i	2,891i
Total, 1st 160 insts.	7,213,373	6,833,515	6,169,542	5,515,757	4,825,571	4,421,664	3,876,481	3,334,120
161 University of Oregon	9,240	6,840	6,195	5,190	3,994	4,032	3,284	3,022
162 Stevens Institute of Tech	9,145	5,187	3,186	2,441	3,588	4,815	3,821i	2,828i
163 Desert Research Institute	9,071	8,153	8,085	7,037	6,710	6,360	5,610	4,705
164 Univ of North Texas	8,769	8,638	7,767	6,308	4,210	2,702	2,283	1,383
165 Wright State University	8,746	6,599	6,025	5,329	4,539	3,565	5,435	5,307
166 Woods Hole Ocngrphic Inst	8,616	9,825e	9,391	10,548	9,300	5,822	5,009	4,572
167 Memphis State University	8,583	9,046	9,407	7,593	6,554	5,864	4,407	3,422
168 Tufts University	8,521	8,635	8,719	9,653	12,272	9,349	8,093i	6,833i
169 Tenn Technological Univ	8,338	8,939	8,345	6,796	6,752	6,259	4,277i	2,295
170 SUNY at Binghamton	8,232	6,740	6,978	6,356	6,194	5,768	4,981	3,936
Total, 1st 170 insts.	7,300,634	6,912,117	6,243,640	5,583,008	4,889,684	4,476,200	3,923,681	3,372,423
171 Rice University	8,068	7,739	6,270	5,223	4,551	4,143i	3,735i	3,327
172 Univ of Mass - Lowell	8,008	5,862	6,629	5,268	5,295	3,277	2,357	2,102
173 South Dakota State Univ	7,941	7,409	5,845	5,218	5,279	5,257	4,616	5,794
174 The Medical Col of Penna	7,921	9,685	6,939	9,028	6,257	3,632	3,486i	3,340i
175 University of Notre Dame	7,621	7,715	6,506	6,176	4,266	4,010	3,597	3,477
176 Univ Alabama Huntsville	7,585	7,136	8,210	8,185	6,630	3,610	2,842	2,018
177 Hahnemann University	7,535	5,677	5,351	3,349	1,733	2,270	1,600	3,290
178 University of Mississippi	7,264	7,811	7,098	6,251	5,808	5,130	5,184	2,807
179 Colorado School of Mines	6,435	6,484	5,633	4,929	3,835	3,369	3,089	2,508
180 Brigham Young University	6,363	5,600	6,251	6,759	5,307	6,321	5,958i	5,595
Total, 1st 180 insts.	7,375,375	6,983,235	6,308,372	5,643,394	4,938,645	4,517,219	3,960,145	3,406,481
181 U of Arkansas Med Sci Cam	6,247	6,443	5,244	5,576	4,005	3,533	3,040	2,098
182 Inst Paper Sci and Tech	6,157	6,479	4,796	4,849	4,733	4,308	4,341	4,063
183 Georgia State University	6,005	5,755	5,321	4,493	3,503	3,152	1,739	995
184 University of Dayton	5,982	6,793	7,133	5,334	5,382	4,735	3,847	3,733
185 Univ of Mass - Boston	5,955	--	--	--	--	--	--	--
186 Cleveland State Univ	5,897	5,677	5,004	4,810	5,287	4,878	2,880	2,290
187 Kent State University	5,849	3,298	2,516	2,921	2,059	1,580	1,444	1,630
188 Univ of Missouri Kan City	5,470	5,177	5,543	5,535	6,145	3,978	3,167	2,071
189 Northern Illinois Univ	5,324	5,457	5,679	4,358	3,545	3,002	3,172	2,992i
190 Univ of Texas at Dallas	5,319	5,749	6,187	4,453	3,827	2,827	1,918	1,891
Total, 1st 190 insts.	7,433,580	7,034,063	6,355,795	5,685,721	4,977,131	4,549,212	3,985,693	3,428,244
191 Clarkson University	5,289	4,896	4,551	3,164	2,663	2,189	2,299	1,316
192 Oregon Grad Inst Sci/Tech	5,194	4,198	2,425	2,243	1,957	1,929	1,891i	1,853i
193 University of Montana	5,153	4,179	3,864	3,711	3,917e	3,760	3,141i	2,521e
194 Western Michigan Univ	4,763	5,166	3,672	2,615i	1,558	1,040	1,294	626
195 University of Tulsa	4,592	4,054	3,288	2,403	2,422	2,029i	1,635i	1,241
196 Old Dominion University	4,575	3,464	3,442	2,932	1,918	2,128	1,637i	1,145i
197 Creighton University	4,569	5,744	6,524	5,548	5,822	4,390i	2,958i	1,526
198 Univ of South Alabama	4,508	5,126	3,868	3,537	3,305	2,953	2,708	2,825
199 CUNY City College	4,279	4,231	2,419	2,719	2,321	1,527	1,451i	1,375
200 Eastern VA Medical School	4,272	4,019	2,714	1,238	1,323	1,709	1,349i	986i
Total, 1st 200 insts.	7,480,774	7,079,140	6,392,562	5,715,831	5,004,337	4,572,866	4,006,056	3,443,658
Total, all other sampled insts.	216,083	256,471	235,756	244,924	266,938	237,499	210,572	179,586
Estimated total non-sampled insts.	95,815	75,912	68,598	61,441	0	0	0	0

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-35. R&D expenditures at universities and colleges, by source of funds: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Federal Govt.	State & local govts.	Industry	Institutional funds	Other
Total, all institutions	18,879,705	11,087,032	1,505,515	1,302,018	3,576,407	1,408,732
1 Johns Hopkins Univ	735,542	686,686	592	13,298	31,402	23,556
2 University of Michigan	393,059	223,452	5,827	24,992	96,183	42,605
3 Stanford University	387,980	285,687	911	11,810	68,774	20,798
4 Univ of Wis-Madison	352,706	199,816	58,454	12,912	48,852	32,672
5 Mass Inst of Technology	324,453	237,972	3,444	49,828	7,385	25,824
6 University of Minnesota	317,028	165,926	49,720	17,529	61,532	22,319
7 University of Washington	313,514	257,840	7,882	26,442	16,364	4,986
8 Texas A & M University	305,390	112,918	79,530	28,675	75,947	8,320
9 Cornell University	299,342	180,361	40,083	13,879	39,636	25,403
10 Univ of Cal San Francisco	295,784	202,283	17,736	6,573	39,083	30,129
Total, 1st 10 insts.	3,704,798	2,512,951	284,159	205,936	485,136	238,612
11 Univ of Cal Berkeley	284,545	148,954	36,665	12,553	67,808	18,567
12 Univ of Cal San Diego	282,114	219,843	9,936	7,485	21,742	23,108
13 Pennsylvania State Univ	278,306	151,877	7,808	42,693	75,883	44
14 Univ of Cal Los Angeles	270,954	180,743	6,120	14,671	38,325	31,095
15 Harvard University	253,126	174,632	448e	11,647e	18,259e	48,140
16 University of Ill Urbana	251,970	129,088	34,437	20,070	58,964	9,413
17 Univ of Texas at Austin	228,545	124,614	12,940	4,814	58,189	28,088
18 Univ of Pennsylvania	222,424	159,574	3,140	10,034	19,083	30,593
19 University of Arizona	221,999	105,912	5,582	12,292	79,582	18,651
20 Univ of MD College Park	219,041	82,469	61,010	15,757	59,805	0
Total, 1st 20 insts.	6,217,819	3,990,655	442,145	357,952	982,756	444,311
21 Yale University	211,589	157,345	907	9,442	18,795	25,080
22 Univ of Cal Davis	209,282	91,318	13,735	8,125	83,030	15,074
23 Ohio State University	203,291	97,940	31,966	13,994	28,260	31,141
24 Columbia Univ Main Div	199,516	174,777	2,422	8,464	4,017	11,846
25 Univ of Southern Cal	194,740	141,713	7,512	15,529	29,986	0
26 Duke University	188,678	125,742	3,047	31,977	13,503	14,409
27 Georgia Institute of Tech	180,283	101,295	1,912	23,776	53,280	0
28 Univ. of Colorado	176,286	129,894	1,730	10,865	12,612	21,375
29 Washington University	170,339	123,883	3,011	15,192	12,127	16,146
30 Baylor Col of Medicine	167,998	85,734	2,177	6,830	20,856	52,801
Total, 1st 30 insts.	8,119,761	5,220,276	510,564	497,726	1,259,022	632,183
31 University of Georgia	165,279	48,962	34,867	8,679	73,806	1,165
32 Rutgers the St Univ of NJ	162,089	56,625	25,176	7,889	63,027	9,372
33 Univ of NC at Chapel Hill	161,549	113,774	17,161	3,298	27,316	0
34 University of Pittsburgh	157,250	121,077	1,363	7,873	13,808	13,129
35 Louisiana State Univ Sys	151,844	48,841	58,305	9,857	22,900	12,341
36 N C State Univ at Raleigh	143,008	80,501	48,364	20,342	21,83u	1,983
37 Michigan State University	142,308	66,466	25,320	6,304	32,911	11,307
38 Northwestern University	141,975	69,241	1,724	6,978	45,644	18,388
39 Purdue University	140,260	58,224	17,938	12,807	33,546	7,947
40 University of Florida	140,189	67,560	11,152	11,949	42,360	7,208
Total, 1st 40 insts.	9,625,512	5,931,377	751,722	591,202	1,636,208	715,003
41 University of Rochester	139,992	110,413	6,547	9,086	2,679	11,268
42 University of Iowa	136,418	68,360	2,389	13,545	25,966	6,139
43 Iowa St U of Sci & Tech	132,880	45,144	28,201	8,011	45,002	6,222
44 Univ. Of Tennessee System	131,240	72,047	21,349	8,479	21,662	7,713
45 VA Polytech Inst & St U	130,994	51,281	36,076	14,333	25,997	3,307
46 SUNY at Buffalo	128,428	77,828	4,862	7,831	19,705	18,412
47 University of Connecticut	124,010	45,967	4,813	5,831	59,608	7,791
48 New York University	122,399	87,081	1,321	4,588	10,780	18,629
49 Case Western Reserve Univ	118,391	83,367	2,541	6,851	10,803	14,809
50 University of Chicago	118,123	97,182	1,809	1,399	6,486	11,247
Total, 1st 50 insts.	10,907,087	6,679,867	861,620	671,155	1,864,676	819,899

See explanatory information and SOURCE at end of table.

Table B-35. R&D expenditures at universities and colleges, by source of funds: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Federal Govt.	State & local govts.	Industry	Institutional funds	Other
51 Univ Alabama Birmingham	117,814	82,392	2,023	8,907	9,998	14,524
52 Indiana University	117,585	69,871	1,190	3,569	28,340	14,595
53 UT MD Anderson Cancer Ctr	112,121	34,492	0	0	57,983	19,646
54 California Inst of Tech	111,733	99,198	486	3,280	5,319	3,450
55 Carnegie-Mellon Univ	110,571	69,848	5,833	19,003	5,974	9,913
56 University of Virginia	110,103	66,151	6,276	8,296	14,290	13,090
57 University of Utah	108,486	79,366	197	4,124	18,592	6,187
58 Univ of MD Balt Prof Sch	107,830	48,066	14,844	13,724	23,138	8,038
59 Oregon State University	107,573	59,739	25,377	3,115	9,711	9,631
60 Univ of Ill Chicago	102,267	48,484	5,217	3,539	32,714	12,313
Total, 1st 60 insts.	12,013,180	7,349,516	923,083	738,712	2,070,935	930,954
61 UT SW Medical Ctr-Dallas	102,263	61,499	153	10,874	6,925	22,812
62 Emory University	101,398	69,894	2,534	7,465	11,732	9,773
63 SUNY at Stony Brook	98,906	63,608	1,424	2,890	24,791	6,193
64 University of Miami	98,786	76,477	1,574	8,586	4,861	7,308
65 Univ of Missouri Columbia	97,242	28,047	13,074	7,612	42,441	6,068
66 Vanderbilt University	96,784	79,594	411	3,794	8,138	4,847
67 Princeton University	93,958	55,722	2,119	4,322	22,697	9,098
68 University of Kentucky	92,244	39,828	5,022	9,253	33,348	4,793
69 University of Oklahoma	92,146	29,733	10,966	4,319	31,999	15,129
70 Univ of Nebraska-Lincoln	91,427	25,382	33,155	3,712	23,107	6,071
Total, 1st 70 insts.	12,978,334	7,879,300	993,495	801,519	2,280,974	1,023,046
71 Utah State University	89,776	54,904	11,770	5,167	16,852	1,283
72 Univ of Cal Irvine	89,275	55,331	4,312	3,825	15,035	10,772
73 Colorado State University	88,132	59,786	10,460	4,213	8,710	4,963
74 Yeshiva University	87,196	68,152	0	1,650	11,382	6,012
75 Washington State Univ	85,060	38,213	5,129	2,459	31,051	8,228
76 Univ of Med & Dent of N J	84,505	39,092	6,006	5,337	27,083	6,986
77 New Mexico State Univ	83,900	62,872	8,739	3,958	7,306	1,025
78 Boston University	83,701	66,677	599	8,437	0	7,988
79 University of Cincinnati	83,176	56,375	2,202	3,942	16,796	3,862
80 Woods Hole Oongrphic Inst	82,845	74,229	547	992	2,096	4,981
Total, 1st 80 insts.	13,835,920	8,454,911	1,043,258	841,499	2,417,084	1,079,168
81 Wayne State University	81,127	35,569	5,511	7,486	24,787	7,774
82 Univ of Hawaii-Manoa	80,258	47,884	26,775	337	3,319	2,143
83 University of New Mexico	80,071	40,033	4,124	8,898	18,511	8,517
84 Clemson University	77,579	18,771	14,397	7,174	30,016	7,221
85 CUNY Mt Sinai Sch of Med	75,561	50,953	886	4,642	8,845	10,333
86 Rockefeller University	75,102	37,832	87	4,823	17,086	15,476
87 University of Kansas	75,004	31,992	2,828	4,877	33,102	2,205
88 Tulane University	72,190	33,304	2,220	7,462	22,137	7,067
89 Oklahoma State University	71,238	15,384	7,544	3,132	44,028	1,150
90 Arizona State University	69,346	33,148	932	5,790	28,369	1,107
Total, 1st 90 insts.	14,563,396	8,799,481	1,108,564	895,908	2,647,283	1,142,160
91 Virginia Commonwith Univ	69,189	45,891	2,197	6,295	12,489	2,317
92 Univ of South Florida	68,713	18,010	5,866	5,127	32,677	7,043
93 Univ of Alaska Fairbanks	67,881	32,066	3,680	3,275	27,205	1,655
94 Auburn University	66,773	15,415	23,008	6,807	16,896	4,649
95 Univ of Cal Santa Barbara	66,007	52,777	1,602	2,447	5,321	3,860
96 Mississippi State Univ	65,754	29,746	17,994	6,920	7,047	4,057
97 U Tex Hlth Sci Ctr S Anto	65,179	41,048	5,487	5,286	9,217	4,179
98 Georgetown University	64,937	42,869	105	4,947	11,387	5,639
99 Univ of Mass - Amherst	62,990	33,408	4,758	5,466	14,157	5,201
100 Unif Serv Univ of Hlth Sc	59,171	16,176	0	0	42,995	0
Total, 1st 100 insts.	15,249,990	9,126,877	1,173,219	942,450	2,826,684	1,180,960

See explanatory information and SOURCE at end of table.

Table B-35. R&D expenditures at universities and colleges, by source of funds: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Federal Govt.	State & local govts.	Industry	Institutional funds	Other
101 Kans St U - Ag & App Sci	57,723	18,583	25,856	2,586	9,067	1,631
102 U Tex Med Brnch Galveston	57,672	24,281	7,027	3,978	15,374	7,012
103 Univ of Cal Riverside	57,536	17,167	3,005	857	32,884	3,623
104 U Tex Hlth Sci Ctr Housin	56,497	36,478	1,354	5,144	5,667	7,854
105 Brown University	55,585	37,856	157	1,882	13,596	2,094
106 Univ of South Carolina	54,360	23,743	1,083	9,019	17,506	3,009
107 Temple University	53,921	26,869	691	4,155	19,172	3,034
108 Dartmouth College	53,668	38,791	4,113	2,638	5,773	2,353
109 Univ of Mass - Worcester	53,342	35,413	242	3,485	14,202	0
110 West Virginia University	52,482	27,740	2,307	5,585	12,033	4,817
Total, 1st 110 insts.	15,802,776	9,413,598	1,219,054	961,779	2,971,958	1,216,387
111 Rensselaer Polytech Inst	50,769	24,313	4,453	12,161	3,827	6,215
112 Tufts University	50,633	42,112	21	7,658e	810e	22e
113 Florida State University	50,178	27,648	3,195	598	17,749	987
114 Wake Forest University	49,919	37,505	305	6,392	2,496e	3,221
115 U of VT & State Agr Coll	49,542	22,757	2,530	4,337	7,445	2,473
116 Oregon Hlth Sciences Univ	49,313	33,548	39	1,043	11,984	2,699
117 University of Delaware	48,970	21,629	4,702	5,075	14,522	3,042
118 U of Houston	44,957	21,881	12,224	1,595	6,484	2,773
119 Univ of Ark Fayetteville	44,768	12,421	14,782	4,051	11,637	1,877
120 University of Idaho	44,140	16,601	10,586	4,084	12,697	192
Total, 1st 120 insts.	16,285,985	9,684,014	1,271,891	1,028,783	3,061,409	1,239,888
121 Medical College of Wis	43,579	27,688	1,227	4,684	3,171	6,829
122 Thomas Jefferson Univ	41,329	28,861	0	12,468	0	0
123 University of Dayton	40,909	34,927	64	4,307	1,549	62
124 Univ of Rhode Island	40,842e	25,480e	5,277i	1,253i	8,716i	116i
125 George Washington Univ	39,335	28,158	780	1,181	3,068	6,148
126 Univ of Nevada - Reno	37,546	14,085	1,246	916	20,690	609
127 SUNY Hlth Sci Ctr - Brldn	37,071	18,458	4,772	637	6,292	6,912
128 Texas Tech University	36,869	11,121	10,746	4,815	8,565	1,622
129 Univ of Cal Santa Cruz	36,413	20,237	1,672	483	11,402	2,619
130 SUNY at Albany	35,856	25,988	820	1,080	5,361	2,587
Total, 1st 130 insts.	16,675,714	9,916,997	1,298,495	1,060,587	3,130,243	1,267,392
131 Brandeis University	35,229	21,800	180	0	4,576	8,673
132 North Dakota State Univ	34,469	8,677	958	1,193	22,255	1,385
133 Montana State University	34,419	13,443	8,927	2,983	8,321	745
134 Univ of New Hampshire	33,744	21,591	1,062	1,813	5,848	3,630
135 Syracuse University	32,145	14,715	2,416	5,195	6,393	3,426
136 Univ Alabama Huntsville	32,017	24,432	589	1,983	5,033	0
137 Med Univ of S. Carolina	31,900	17,174	0	2,868	4,410	7,448
138 Lehigh University	31,822	17,426	1,631	7,467	4,346	952
139 U of Neb Med Ctr at Omaha	31,564	9,740	4,237	2,163	13,295	2,129
140 San Diego State Univ	30,683	15,679	6,251	1,865	5,682	1,206
Total, 1st 140 insts.	17,003,703	10,083,674	1,324,744	1,088,097	3,210,202	1,296,986
141 University of Oregon	30,242	21,002	621	228	6,212	2,179
142 University of Wyoming	30,181	13,298	2,652	2,841	10,907	483
143 Loyola Univ - Chicago	30,099	18,071	495	3,442	3,027	5,064
144 Rice University	29,424	21,356	2,482	4,147	0	1,439
145 Southern Ill U-Carbondale	28,094	7,362	6,578	2,004	9,881	2,249
146 Univ of Central Florida	27,629	9,151	3,907	3,947	10,624	0
147 Rush University	26,184	9,130	811	3,218	8,896	4,129
148 The Medical Col of Penna	25,835	17,914	154	2,938	4,322	507
149 Univ of P R-Mayaguez	25,238	9,117	7,499	1,008	6,579	1,035
150 N Mex Inst Mining & Tech	25,208	7,682	2,258	9,616	5,503	149
Total, 1st 150 insts.	17,281,837	10,217,777	1,352,201	1,121,486	3,278,153	1,314,220

See explanatory information and SOURCE at end of table.

Table B-35. R&D expenditures at universities and colleges, by source of funds: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Federal Govt.	State & local govts.	Industry	Institutional funds	Other
151 University of Mississippi	23,361	16,097	99	1,742	3,794	1,629
152 Univ of Maine Orono	23,213	8,975	1,320	3,545	8,892	481
153 Drexel University	23,184	9,869	3,340	3,429	6,546	0
154 University of Notre Dame	22,679	15,058	1,041	4,658	1,922	0
155 The University of Alabama	22,573	6,877	193	2,240	12,884	379
156 Florida A & M University	22,230	18,898	2,241	1,291	0	0
157 Medical Col of Georgia	21,426	7,747	313	2,090	9,647	1,629
158 N J Inst of Technology	21,126	5,778	6,485	2,173	5,507	1,183
159 Desert Research Institute	20,579	11,508	1,191	4,466	3,195	219
160 US Naval Postgrad School	20,412	20,171	53	113	0	65
Total, 1st 160 insts.	17,502,620	10,338,555	1,366,487	1,147,233	3,330,540	1,319,805
161 St Louis University	19,932	17,708	352	523	228	1,121
162 College of William & Mary	18,890	8,209	1,193	630	8,195	663
163 Univ of Wis-Milwaukee	18,567	7,641	6,341	689	2,497	1,399
164 U of MD Center For EES	18,557	4,321	3,935	71	8,924	1,306
165 SUNY Col of Env Sci & For	18,456	2,427	752	1,793	12,765	719
166 San Jose State University	18,328	8,948	1,959	5,498	1,205	716
167 Univ of North Dakota	18,265	15,895	129	863	1,162	216
168 Michigan Tech University	18,179	8,242	1,556	2,946	5,435	0
169 Howard University	17,576	13,976	492	364	1,200	1,544
170 Wright State University	17,401	8,655	1,368	391	5,236	1,751
Total, 1st 170 insts.	17,686,769	10,434,577	1,384,584	1,161,001	3,377,387	1,329,240
171 University of Louisville	17,400	7,267	64	3,547	6,522	0
172 Hahnemann University	17,332	9,797	136	352	4,969	2,078
173 New York Medical College	16,799	13,061	204	1,429	0	2,105
174 CUNY City College	16,454	12,175	596	1,105	0	2,578
175 U of Arkansas Med Sci Cam	15,889	9,842	659	1,330	2,884	1,574
176 Northeastern University	15,876	12,841	273	1,444	195	1,123
177 Univ of Missouri Rolla	15,619	4,819	544	2,147	6,346	1,763
178 Univ of Mass - Lowell	14,880	6,872	1,243	3,770	1,550	1,445
179 Ohio University	14,811	4,856	3,151	1,779	4,314	711
180 Stevens Institute of Tech	14,580	5,435	2,083	6,237	825	0
Total, 1st 180 insts.	17,846,409	10,521,342	1,393,517	1,184,141	3,404,792	1,342,617
181 Brigham Young University	14,469	8,106	907	2,241	3,086	129
182 University of Akron	14,437	3,950	2,303	4,651	3,404	129
183 SUNY Hlth Sci Ctr - Syrcs	13,898	9,985	39	532	0	3,340
184 Univ of Tex at Arlington	13,896	3,296	1,070	2,351	7,179	0
185 Univ of P R-Med Sci Cmpus	13,685	10,679	526	0	1,602	878
186 Univ of Nevada, Las Vegas	13,300	10,006	672	610	1,668	344
187 Univ of Texas at Dallas	12,995	7,676	1,696	1,157	1,607	859
188 SUNY at Binghamton	12,843	4,611	882	1,505	3,882	1,963
189 Colorado School of Mines	12,783	6,348	632	5,542	261	0
190 South Dakota State Univ	12,692	4,751	5,847	354	1,204	736
Total, 1st 190 insts.	17,981,405	10,580,750	1,407,891	1,203,084	3,428,686	1,360,995
191 Oregon Grad Inst Sci/Tech	12,332	7,138	765	2,244	1,490	695
192 Univ of South Alabama	12,277	7,769	502	1,703	2,303	0
193 Memphis State University	12,169	3,586	3,264	12	4,647	660
194 George Mason University	11,930	8,439	166	1,489	749	1,087
195 NC Ag & Tech State Univ	11,914	8,196	1,422	459	940	897
196 Kent State University	11,855	5,808	1,879	94	3,357	519
197 Clark Atlanta University	11,483	9,985	109	181	1,208	0
198 Eastern VA Medical School	11,238	6,966	0	0	0	4,272
199 Cleveland State Univ	10,939	5,042	2,517	605	2,775	0
200 Med Col of Ohio at Toledo	10,906	7,083	1,270	661	1,201	690
Total, 1st 200 insts.	18,098,247	10,660,760	1,419,785	1,210,532	3,447,355	1,359,815
Total, all other sampled insts.	609,601	380,231	61,261	61,992	100,286	35,831
Estimated total non-sampled insts.	171,857	78,041	24,469	29,494	28,766	13,086

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-36. R&D expenditures at public universities and colleges, by source of funds: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Federal Govt.	State & local govts.	Industry	Institutional funds	Other
Total, all institutions	12,834,376	6,598,442	1,367,433	857,491	2,957,206	853,805
1 University of Michigan	393,059	223,452	5,827	24,992	96,183	42,605
2 Univ of Wis-Madison	352,708	199,816	58,454	12,912	48,852	32,672
3 University of Minnesota	317,026	165,926	49,720	17,529	61,532	22,319
4 University of Washington	313,514	257,840	7,882	26,442	16,364	4,986
5 Texas A & M University	305,390	112,918	79,530	28,675	75,947	8,320
6 Univ of Cal San Francisco	295,784	202,283	17,736	6,573	39,063	30,129
7 Univ of Cal Berkeley	284,545	148,954	36,685	12,553	67,808	18,567
8 Univ of Cal San Diego	282,114	219,843	9,936	7,485	21,742	23,108
9 Pennsylvania State Univ	278,305	151,877	7,808	42,693	75,883	44
10 Univ of Cal Los Angeles	270,954	180,743	6,120	14,671	38,325	31,095
Total, 1st 10 insts.	3,093,397	1,863,652	279,678	194,525	541,697	213,845
11 University of Ill Urbana	251,970	129,086	34,437	20,070	58,964	9,413
12 Univ of Texas at Austin	228,545	124,614	12,840	4,814	58,189	28,088
13 University of Arizona	221,999	105,912	5,582	12,292	79,562	18,651
14 Univ of MD College Park	219,041	82,469	61,010	15,757	59,805	0
15 Univ of Cal Davis	209,282	91,318	13,735	6,125	83,030	15,074
16 Ohio State University	203,291	97,940	31,956	13,994	28,260	31,141
17 Georgia Institute of Tech	180,263	101,295	1,912	23,776	53,280	0
18 Univ. of Colorado	176,266	129,894	1,730	10,655	12,612	21,375
19 University of Georgia	165,279	48,962	34,667	6,679	73,806	1,165
20 Rutgers the St Univ of NJ	162,089	56,625	25,176	7,889	63,027	9,372
Total, 1st 20 insts.	5,111,422	2,831,767	502,723	316,576	1,112,232	348,124
21 Univ of NC at Chapel Hill	161,549	113,774	17,161	3,298	27,316	0
22 University of Pittsburgh	157,250	121,077	1,363	7,873	13,808	13,129
23 Louisiana State Univ Sys	151,844	48,641	58,305	9,657	22,900	12,341
24 N C State Univ at Raleigh	143,008	50,501	48,364	20,342	21,838	1,963
25 Michigan State University	142,374	66,466	25,320	6,304	32,911	11,307
26 Purdue University	140,260	68,224	17,936	12,607	33,546	7,947
27 University of Florida	140,189	67,590	11,152	11,849	42,390	7,208
28 University of Iowa	135,418	88,360	2,389	13,545	25,986	5,138
29 Iowa St U of Sci & Tech	132,580	45,144	28,201	8,011	45,002	6,222
30 Univ. Of Tennessee System	131,240	72,047	21,349	8,479	21,652	7,713
Total, 1st 30 insts.	6,547,088	3,573,591	734,263	418,541	1,399,581	421,092
31 VA Polytech Inst & St U	130,994	51,281	36,076	14,333	25,997	3,307
32 SUNY at Buffalo	128,428	77,628	4,852	7,831	19,705	18,412
33 University of Connecticut	124,010	45,967	4,813	5,831	59,608	7,791
34 Univ Alabama Birmingham	117,844	82,392	2,023	8,907	9,998	14,524
35 Indiana University	117,565	69,871	1,190	3,569	28,340	14,595
36 UT MD Anderson Cancer Ctr	112,121	34,492	0	0	57,983	19,646
37 University of Virginia	110,103	68,151	6,276	8,298	14,290	13,090
38 University of Utah	108,486	79,388	197	4,124	18,592	6,187
39 Univ of MD Balt Prof Sch	107,830	48,086	14,844	13,724	23,138	8,036
40 Oregon State Univ	107,573	59,739	25,377	3,115	9,711	9,631
Total, 1st 40 insts.	7,712,022	4,190,586	829,911	488,271	1,666,943	536,311
41 Univ of Ill Chicago	102,267	48,484	5,217	3,539	32,714	12,313
42 UT SW Medical Ctr-Dallas	102,263	61,499	153	10,874	6,925	22,812
43 SUNY at Stony Brook	98,906	63,908	1,424	2,890	24,791	6,193
44 Univ of Missouri Columbia	97,242	28,047	13,074	7,612	42,441	6,068
45 University of Kentucky	92,244	39,828	5,022	9,253	33,348	4,793
46 University of Oklahoma	92,148	29,733	10,988	4,319	31,999	15,129
47 Univ of Nebraska-Lincoln	91,427	25,382	33,155	3,712	23,107	6,071
48 Utah State University	89,778	54,904	11,770	5,167	16,652	1,283
49 Univ of Cal Irvine	89,275	55,331	4,312	3,825	15,036	10,772
50 Colorado State University	88,132	59,788	10,460	4,213	8,710	4,983
Total, 1st 50 insts.	8,666,700	4,657,168	925,464	543,675	1,902,666	626,728

See explanatory information and SOURCE at end of table.

Table B-36. R&D expenditures at public universities and colleges, by source of funds: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Federal Govt.	State & local govts.	Industry	Institutional funds	Other
51 Washington State Univ	85,080	38,213	5,129	2,459	31,051	8,228
52 Univ of Med & Dent of N J	84,505	39,092	6,005	5,337	27,083	6,988
53 New Mexico State Univ	83,900	62,872	8,739	3,958	7,306	1,025
54 University of Cincinnati	83,176	56,375	2,202	3,942	16,795	3,862
55 Wayne State University	81,127	35,569	5,511	7,486	24,787	7,774
56 Univ of Hawaii-Manoa	80,258	47,684	26,775	337	3,319	2,143
57 University of New Mexico	80,071	40,033	4,124	8,886	18,511	8,517
58 Clemson University	77,579	18,771	14,397	7,174	30,016	7,221
59 University of Kansas	75,004	31,992	2,828	4,877	33,102	2,205
60 Oklahoma State University	71,238	15,384	7,544	3,132	44,028	1,150
Total, 1st 60 insts.	9,457,638	5,043,153	1,008,718	591,263	2,138,863	675,641
61 Arizona State University	69,346	33,148	932	5,790	28,369	1,107
62 Virginia Commonwlth Univ	69,189	45,891	2,197	6,285	12,499	2,317
63 Univ of South Florida	68,713	18,010	5,856	5,127	32,677	7,043
64 Univ of Alaska Fairbanks	67,861	32,066	3,880	3,275	27,205	1,655
65 Auburn University	66,773	15,415	23,006	6,807	16,896	4,649
66 Univ of Cal Santa Barbara	66,007	52,777	1,802	2,447	5,321	3,660
67 Mississippi State Univ	65,754	29,746	17,984	6,920	7,047	4,057
68 U Tex Hlth Sci Ctr S Anto	65,179	41,048	5,467	5,268	9,217	4,179
69 Univ of Mass - Amherst	62,990	33,408	4,758	5,466	14,157	5,201
70 Univ Serv Univ of Hlth Sc	59,171	16,176	0	0	42,995	0
Total, 1st 70 insts.	10,118,641	5,360,838	1,074,200	638,648	2,335,046	709,909
71 Kans St U - Ag & App Sci	57,723	18,583	25,856	2,586	9,067	1,631
72 U Tex Med Brnch Galveston	57,672	24,281	7,027	3,978	15,374	7,012
73 Univ of Cal Riverside	57,536	17,167	3,005	857	32,884	3,623
74 U Tex Hlth Sci Ctr Housin	56,497	36,478	1,354	5,144	5,667	7,854
75 Univ of South Carolina	54,360	23,743	1,083	9,019	17,506	3,009
76 Temple University	53,921	26,869	691	4,155	19,172	3,034
77 Univ of Mass - Worcester	53,342	35,413	242	3,485	14,202	0
78 West Virginia University	52,482	27,740	2,307	5,585	12,033	4,817
79 Florida State University	50,178	27,649	3,195	598	17,749	987
80 U of VT & State Agr Coll	49,542	32,757	2,530	4,337	7,445	2,473
Total, 1st 80 insts.	10,661,894	5,631,518	1,121,490	678,392	2,496,145	744,349
81 Oregon Hlth Sciences Univ	49,313	33,548	39	1,043	11,984	2,699
82 University of Delaware	48,970	21,629	4,702	5,075	14,522	3,042
83 U of Houston	44,957	21,881	12,224	1,596	6,484	2,773
84 Univ of Ark Fayetteville	44,788	12,421	14,782	4,051	11,637	1,877
85 University of Idaho	44,140	16,601	10,586	4,084	12,697	192
86 Univ of Rhode Island	40,842e	25,480e	5,277I	1,253I	8,716I	116I
87 Univ of Nevada - Reno	37,546	14,085	1,248	916	20,690	609
88 SUNY Hlth Sci Ctr - Brkln	37,071	18,458	4,772	637	6,292	6,912
89 Texas Tech University	36,869	11,121	10,746	4,815	8,565	1,622
90 Univ of Cal Santa Cruz	36,413	20,237	1,672	483	11,402	2,619
Total, 1st 90 insts.	11,082,783	5,826,979	1,187,538	702,324	2,599,134	766,810
91 SUNY at Albany	35,856	25,998	820	1,080	5,381	2,587
92 North Dakota State Univ	34,486	8,677	956	1,193	22,255	1,385
93 Montana State University	34,419	13,443	8,927	2,983	8,321	745
94 Univ of New Hampshire	33,744	21,591	1,062	1,813	5,848	3,630
95 Univ Alabama Huntsville	32,017	24,432	589	1,983	5,033	0
96 Med Univ of S. Carolina	31,900	17,174	0	2,868	4,410	7,448
97 U of Neb Med Ctr at Omaha	31,564	9,740	4,237	2,163	13,295	2,129
98 San Diego State Univ	30,883	15,679	6,251	1,865	5,682	1,206
99 University of Oregon	30,242	21,002	621	228	6,212	2,179
100 University of Wyoming	30,181	13,298	2,652	2,841	10,907	483
Total, 1st 100 insts.	11,407,855	5,998,003	1,213,651	721,321	2,696,278	788,602

See explanatory information and SOURCE at end of table.

Table B-36. R&D expenditures at public universities and colleges, by source of funds: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Federal Govt.	State & local govts.	Industry	Institutional funds	Other
101 Southern Ill U-Carbondale	28,094	7,382	6,578	2,004	9,881	2,249
102 Univ of Central Florida	27,629	9,151	3,907	3,947	10,624	0
103 Univ of P R-Mayaguez	25,238	9,117	7,499	1,008	6,579	1,035
104 N Mex Inst Mining & Tech	25,208	7,682	2,258	9,616	5,503	149
105 University of Mississippi	23,361	16,097	99	1,742	3,794	1,629
106 Univ of Maine Orono	23,213	8,975	1,320	3,545	8,892	481
107 The University of Alabama	22,573	6,877	193	2,240	12,884	379
108 Florida A & M University	22,230	18,698	2,241	1,291	0	0
109 Medical Col of Georgia	21,426	7,747	313	2,090	9,647	1,629
110 N J Inst of Technology	21,126	5,778	6,485	2,173	5,507	1,183
Total, 1st 110 insts.	11,647,953	6,095,507	1,244,544	750,977	2,759,589	797,336
111 Desert Research Institute	20,579	11,508	1,191	4,466	3,195	219
112 US Naval Postgrad School	20,412	20,171	63	113	0	65
113 College of William & Mary	18,890	8,209	1,193	630	8,195	663
114 Univ of Wis-Milwaukee	18,567	7,641	6,341	689	2,497	1,399
115 U of MD Center For EES	18,557	4,321	3,935	71	8,924	1,306
116 SUNY Col of Env Sci & For	18,456	2,427	752	1,793	12,765	719
117 San Jose State University	18,326	8,948	1,959	5,498	1,205	716
118 Univ of North Dakota	18,265	15,895	129	863	1,162	216
119 Michigan Tech University	18,179	8,242	1,556	2,946	5,435	0
120 Wright State University	17,401	8,655	1,368	391	5,236	1,751
Total, 1st 120 insts.	11,835,585	6,191,524	1,263,031	768,437	2,808,203	804,390
121 University of Louisville	17,400	7,267	64	3,547	6,522	0
122 CUNY City College	16,454	12,175	596	1,105	0	2,578
123 U of Arkansas Med Sci Cam	15,829	9,642	659	1,330	2,684	1,574
124 Univ of Missouri Rolla	15,619	4,819	544	2,147	6,346	1,763
125 Univ of Mass - Lowell	14,880	6,872	1,243	3,770	1,550	1,445
126 Ohio University	14,811	4,856	3,151	1,779	4,314	711
127 University of Akron	14,437	3,950	2,303	4,651	3,404	129e
128 SUNY Hlth Sci Ctr - Syrcs	13,898	9,985	39	532	0	3,340
129 Univ of Tex at Arlington	13,896	3,296	1,070	2,351	7,179	0
130 Univ of P R-Med Sci Cmpus	13,685	10,679	526	0	1,602	878
Total, 1st 130 insts.	11,986,552	6,265,085	1,273,226	789,649	2,841,804	816,808
131 Univ of Nevada, Las Vegas	13,300	10,006	672	610	1,668	344
132 Univ of Texas at Dallas	12,995	7,676	1,696	1,157	1,607	859
133 SUNY at Binghamton	12,843	4,611	882	1,505	3,882	1,963
134 Colorado School of Mines	12,783	6,348	632	5,542	261	0
135 South Dakota State Univ	12,692	4,751	5,647	354	1,204	736
136 Univ of South Alabama	12,277	7,769	502	1,703	2,303	0
137 Memphis State University	12,169	3,586	3,264	12	4,847	660
138 George Mason University	11,930	8,439	166	1,489	749	1,087
139 NC Ag & Tech State Univ	11,914	8,196	1,422	459	940	897
140 Kent State University	11,855	5,806	1,879	94	3,357	519
Total, 1st 140 insts.	12,111,110	6,332,253	1,289,988	802,574	2,862,422	823,873
141 Cleveland State Univ	10,939	5,042	2,517	605	2,775	0
142 Med Col of Ohio at Toledo	10,905	7,083	1,270	661	1,201	690
143 Old Dominion University	10,859	6,284	3,564	1,011	0	0
144 Univ of Southwestern LA	10,815	1,007	2,645	0	6,085	1,078
145 Northern Illinois Univ	10,708	5,384	248	1,458	3,618	0
146 Univ of North Texas	10,701	1,932	3,372	1,712	887	2,798
147 University of Montana	10,177	5,024	1,358	247	3,224	324
148 Univ of Texas at El Paso	10,147	7,433	1,953	594	167	0
149 Georgia State University	10,026	4,021	148	347	4,251	1,259
150 Univ of Missouri Kan City	9,889	4,419	506	1,032	3,308	624
Total, 1st 150 insts.	12,216,276	6,379,882	1,307,569	810,241	2,887,938	830,646
Total, all other sampled insts.	282,835	162,877	36,445	22,474	46,661	14,358
Estimated total non-sampled insts.	135,265	55,683	23,419	24,776	22,587	8,801

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-37. R&D expenditures at private universities and colleges, by source of funds: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Federal Govt.	State & local govts.	Industry	Institutional funds	Other
Total, all institutions	6,245,329	4,488,590	138,083	444,527	619,201	554,927
1 Johns Hopkins Univ	735,542	666,696	592	13,296	31,402	23,556
2 Stanford University	367,980	265,687	911	11,810	68,774	20,798
3 Mass Inst of Technology	324,453	237,972	3,444	49,828	7,385	25,824
4 Cornell University	299,342	180,361	40,063	13,879	39,636	25,403
5 Harvard University	253,126	174,632	448e	11,647e	18,259e	48,140
6 Univ of Pennsylvania	222,424	159,574	3,140	10,034	19,083	30,593
7 Yale University	211,569	157,345	907	9,442	18,795	25,080
8 Columbia Univ Main Div	199,516	174,777	2,422	6,454	4,017	11,846
9 Univ of Southern Cal	194,740	141,713	7,512	15,529	29,986	0
10 Duke University	188,678	125,742	3,047	31,977	13,503	14,409
Total, 1st 10 insts.	2,997,370	2,284,499	62,486	173,896	250,840	225,649
11 Washington University	170,339	123,863	3,011	15,192	12,127	16,146
12 Baylor Col of Medicine	167,998	85,734	2,177	6,630	20,656	52,801
13 Northwestern University	141,975	69,241	1,724	6,978	45,644	18,388
14 University of Rochester	139,992	110,413	6,547	9,085	2,679	11,268
15 New York University	122,399	87,081	1,321	4,588	10,750	18,659
16 Case Western Reserve Univ	118,391	83,387	2,541	6,851	10,803	14,809
17 University of Chicago	118,123	97,182	1,809	1,399	6,486	11,247
18 California Inst of Tech	111,733	99,198	486	3,280	5,319	3,450
19 Carnegie-Mellon Univ	110,571	69,848	5,833	19,003	5,974	9,913
20 Emory University	101,398	69,894	2,534	7,465	11,732	9,773
Total, 1st 20 insts.	4,300,289	3,180,340	90,469	254,367	383,010	392,103
21 University of Miami	98,786	76,477	1,574	8,586	4,861	7,308
22 Vanderbilt University	96,784	79,594	411	3,794	8,138	4,847
23 Princeton University	93,958	55,722	2,119	4,322	22,697	9,098
24 Yeshiva University	87,198	68,152	0	1,650	11,382	6,012
25 Boston University	83,701	66,677	599	8,437	0	7,988
26 Woods Hole Ocngrphic Inst	82,845	74,229	547	992	2,096	4,981
27 CUNY Mt Sinai Sch of Med	75,561	50,853	868	4,642	8,845	10,333
28 Rockefeller University	75,102	37,832	87	4,623	17,085	15,475
29 Tulane University	72,190	33,304	2,220	7,462	22,137	7,067
30 Georgetown University	64,937	42,659	105	4,947	11,387	5,839
Total, 1st 30 insts.	5,131,349	3,765,839	99,019	303,802	491,638	471,051
31 Brown University	55,585	37,856	157	1,882	13,596	2,094
32 Dartmouth College	53,668	36,791	4,113	2,638	5,773	2,353
33 Rensselaer Polytech Inst	50,769	24,313	4,453	12,161	3,627	6,215
34 Tufts University	50,633	42,112	21	7,666e	810e	22e
35 Wake Forest University	49,919	37,505	305	8,392	2,496e	3,221
36 Medical College of Wis	43,579	27,668	1,227	4,684	3,171	6,829
37 Thomas Jefferson Univ	41,329	28,861	0	12,468	0	0
38 University of Dayton	40,909	34,927	64	4,307	1,549	62
39 George Washington Univ	39,335	26,158	780	1,181	3,068	8,148
40 Brandeis University	35,229	21,800	180	0	4,576	8,673
Total, 1st 40 insts.	5,592,304	4,087,830	110,319	357,183	530,304	506,668
41 Syracuse University	32,145	14,715	2,416	5,195	6,393	3,426
42 Lehigh University	31,822	17,426	1,631	7,467	4,346	952
43 Loyola Univ - Chicago	30,099	18,071	495	3,442	3,027	5,064
44 Rice University	29,424	21,356	2,462	4,147	0	1,439
45 Rush University	26,184	9,130	811	3,218	8,896	4,129
46 The Medical Col of Penna	25,835	17,914	154	2,938	4,322	507
47 Drexel University	23,184	9,869	1,340	3,429	8,546	0
48 University of Notre Dame	22,679	15,068	1,041	4,658	1,922	0
49 St Louis University	19,932	17,708	352	523	228	1,121
50 Howard University	17,576	13,976	492	364	1,200	1,544
Total, 1st 50 insts.	5,851,184	4,243,063	121,533	392,564	569,184	524,850

See explanatory information and SOURCE at end of table.

Table B-37. R&D expenditures at private universities and colleges, by source of funds: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Federal Govt.	State & local govts.	Industry	Institutional funds	Other
51 Hahnemann University	17,332	9,797	136	352	4,969	2,078
52 New York Medical College	16,799	13,061	204	1,429	0	2,105
53 Northeastern University	15,876	12,841	273	1,444	195	1,123
54 Stevens Institute of Tech	14,580	5,435	2,083	6,237	825	0
55 Brigham Young University	14,469	8,106	907	2,241	3,086	129
56 Oregon Grad Inst Sci/Tech	12,332	7,138	765	2,244	1,490	695
57 Clark Atlanta University	11,483	9,985	109	181	1,208	0
58 Eastern VA Medical School	11,238	6,966	0	0	0	4,272
59 Boston College	10,400	8,695	52	102	615	936
60 Albany Medical College	9,681	6,740	0	12	2,734	195
Total, 1st 60 insts.	5,985,374	4,331,817	126,062	406,806	584,306	536,383
61 Clarkson University	9,518	4,229	1,060	2,315	1,914	0
62 Polytechnic University	9,273	5,600	1,110	1,972	500	91e
63 Worcester Poly Institute	8,925	6,018	252	1,603	959	93
64 Mercer University	8,554	7,325	152	644	433	0
65 University of Denver	8,284	7,236	470	352	135	91
66 Creighton University	8,047	3,478	131	2,654	1,649	135
67 Loma Linda University	8,028	4,036	200	2,750	434	608
68 Chas R Drew U of Med & Sc	7,862	5,949	804	141	396	572
69 Southern Methodist Univ	7,722	5,138	418	176	1,479	511
70 Inst Paper Sci and Tech	7,474	1,317	0	624	4,632	901
Total, 1st 70 insts.	6,069,061	4,382,143	130,659	420,037	596,837	539,385
71 Catholic Univ of America	7,346	5,388	20	1,544	0	394e
72 Meharry Medical College	7,258	6,673	0	111	136	338
73 Morehouse School of Med	7,106	6,155	0	261	260	430
74 Illinois Inst of Tech	6,293	4,165	339	1,145	644	0
75 University of Tulsa	5,961	1,369	1,068	2,649	868	7
76 Florida Inst of Tech	5,924	2,080	2,092	1,575	177	0
77 U Hlth Sci/Chgo Med Schl	5,899	4,167	0	165	648	919
78 Wesleyan University	5,603	3,577	467	0	462	1,097
79 Tuskegee University	4,800	4,496	0	120	128	56
80 American University	4,330	3,926	31	77	216	80
Total, 1st 80 insts.	6,129,581	4,424,141	134,676	427,884	600,374	542,706
81 Marquette University	4,256	2,612	95	463	236	850
82 Alfred University	4,117	403	1,052	1,988	561	113
83 Hampton University	3,272	3,272	0	0	0	0
84 Texas Christian Univ	3,128	2,765	0	298	65	0
85 New York Inst Technology	3,085l	0l	0l	474l	2,611l	0l
86 Xavier University of LA	2,379	2,365	0	14	0	0
87 Institute of Textile Tech	2,281	0	0	2,143	138	0
88 Santa Clara University	2,103	459	0	225	1,312	107
89 Amherst College	2,060	933	0	98	1,049	0
90 Fordham University	1,936	1,468	50	0	0	418e
Total, 1st 90 insts.	6,158,218	4,436,418	135,873	433,387	606,346	544,194
91 Bryn Mawr College	1,746	801	20	0	925	0
92 University of Detroit	1,731	318	0	1,383	50	0
93 Occidental College	1,722	908	157	295	153	209
94 Ponce School of Medicine	1,715	1,573	70	0	50	22
95 Clark University	1,694	1,121	0	0	0	573
96 New Sch For Soc Research	1,572	376	0	0	0	1,196
97 Villanova University	1,560	882	150	328	200	0
98 Pomona College	1,531	358	0	124	389	660
99 Smith College	1,481l	312l	0l	0l	384l	785l
100 Baylor University	1,469	635	111	96	237	390
Total, 1st 100 insts.	6,174,439	4,445,702	136,381	435,593	608,734	548,029
Total, all other sampled insts.	34,298	22,530	651	4,216	4,288	2,613
Estimated total non-sampled insts.	36,592	20,358	1,051	4,718	6,179	4,285

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
l = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-38. Industry-sponsored R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	1992	1991	1990	1989	1988	1987	1986	1985
Total, all institutions	1,302,018	1,209,909	1,130,397	998,431	871,960	790,161	699,759	560,027
1 Mass Inst of Technology	49,828	45,712	43,480	39,650	33,256	35,064	34,764	32,007
2 Pennsylvania State Univ	42,693	37,587	34,806	30,256	24,068	20,114	16,905	15,715
3 Duke University	31,977	22,876	12,252	12,551	12,379	8,085	7,300	5,193
4 Texas A & M University	28,675	23,050	26,197	21,204	18,534	13,398	7,944	11,731
5 University of Washington	26,442	26,033	22,215	19,135	16,580	18,564	16,493	8,887
6 University of Michigan	24,992	24,717	27,128	22,023	14,782	14,451	12,481	11,677
7 Georgia Institute of Tech	23,776	22,496	21,256	21,346	21,567	23,628	21,944	18,730
8 N C State Univ at Raleigh	20,342	20,961	21,398	21,735	18,580	11,748	10,452	8,249
9 University of Ill Urbana	20,070	24,434	20,762	15,785	13,686	11,414	8,831	7,506
10 Carnegie-Mellon Univ	19,003	20,438	20,295	18,976	17,092	16,130	17,591	11,780
Total, 1st 10 insts.	287,798	268,304	249,769	222,661	190,524	172,596	154,705	131,475
11 University of Minnesota	17,529	19,270	18,086	12,389	10,670	11,056	11,157	8,135
12 Univ of MD College Park	15,757	11,938	14,229i	12,940i	11,451i	10,149e	8,124e	7,374e
13 Univ of Southern Cal	15,529	13,852	18,896	14,716	11,805	9,999	6,376	5,361
14 Washington University	15,192	16,442	14,132	13,500	12,839	12,016	11,352	9,617
15 Univ of Cal Los Angeles 1/	14,671	8,619	8,310	7,548	8,492	14,380	12,659	0
16 VA Polytech Inst & St U	14,333	12,443	11,394	9,825	9,058	7,010	6,463	5,924
17 Ohio State University	13,994	15,409	14,744	20,244	10,910	9,278	7,826	7,140
18 Cornell University	13,879	16,761	16,620	16,627	15,806	17,169	14,256	12,526
19 Univ of MD Balt Prof Sch	13,724	11,898	12,791	11,183	8,017	7,652	6,827	4,414i
20 University of Iowa	13,545	7,828	6,827	10,301	5,527	2,615	1,706	1,556
Total, 1st 20 insts.	435,951	402,764	385,798	351,934	295,099	273,900	241,451	193,522
21 Johns Hopkins Univ	13,296	14,953	14,961	11,013	9,247	7,755	3,538	3,076
22 Univ of Wis-Madison	12,912	12,624	12,123	11,035	9,556	8,586	8,007	7,217
23 Purdue University	12,607	11,962	11,632	11,451	10,325	9,579	8,776	9,583
24 Univ of Cal Berkeley 1/	12,553	11,970	10,892	8,480	8,267	6,580	6,143	0
25 Thomas Jefferson Univ	12,468	9,966	8,518	8,094	7,465	6,287	5,095	4,740
26 University of Arizona	12,292	12,091	10,246	9,729	12,245	11,638	11,158	9,402
27 Rensselaer Polytech Inst	12,161	12,236	11,418	9,066	9,014	8,006	5,813i	5,262
28 University of Florida	11,849	13,376	12,237	10,579	8,529	9,404	7,902	8,254
29 Stanford University	11,810	11,935	12,931	13,764	11,628	10,979	8,833	8,044
30 Harvard University	11,647e	11,957	10,565e	10,461e	9,093e	7,778e	6,723e	5,410e
Total, 1st 30 insts.	559,546	525,834	501,321	455,606	390,468	380,492	313,439	254,510
31 UT SW Medical Ctr-Dallas	10,874	9,330	8,537	6,936	5,915	5,566	4,295	3,967
32 Univ. of Colorado	10,655	8,251	7,426	6,728	5,234	4,502	3,567	2,234
33 Univ of Pennsylvania	10,034	7,171	11,973	9,582	6,230	7,483	7,299	3,685
34 Louisiana State Univ Sys	9,657	8,616	3,759	2,120	2,348	1,481	998	1,372
35 N Mex Inst Mining & Tech	9,616	9,907i	10,194	7,695	6,853	5,418	3,335	2,536i
36 Yale University	9,442	8,700	7,014	6,563	5,649	5,563	1,790	1,729
37 University of Kentucky	9,253	7,476	6,720	5,819	4,191	6,312	8,173	4,768
38 University of Rochester	9,085	6,814	6,419	4,913	4,705	6,267	6,714	6,898
39 Univ of South Carolina	9,019	7,625	3,072	1,968	3,053	1,531	1,566	1,442
40 Univ Alabama Birmingham	8,907	7,867	7,241	6,602	6,153	4,544	4,508	3,705
Total, 1st 40 insts.	656,088	607,591	573,676	514,534	440,799	409,159	355,684	286,846
41 University of New Mexico	8,866	4,684	4,022	2,496	1,140	4,858	4,450	3,875
42 University of Miami	8,566	6,593	5,366	4,702	4,907	7,300	8,897	7,892
43 Univ. Of Tennessee System	8,479	8,857	7,199	6,515	7,225	5,662	4,266	4,176
44 Boston University	8,437	6,405	4,606	2,555	2,379	2,276	2,076	1,994
45 University of Virginia	8,296	8,153	6,406	5,766	4,733	3,260	2,941	2,347
46 Iowa St U of Sci & Tech	8,011	6,537	5,525	4,406	3,961	3,597	3,043	3,131
47 Rutgers the St Univ of NJ	7,869	7,769	6,754	6,087	4,498	3,087	2,594	2,108
48 University of Pittsburgh	7,873	7,110	6,481	9,406	8,736	6,547	5,428	4,069
49 SUNY at Buffalo	7,831	3,086	2,118	1,759	1,178	779	234	243
50 Tufts University	7,668e	7,740e	7,761e	8,010e	8,375	6,314e	982i	828i
Total, 1st 50 insts.	738,024	674,525	629,916	566,240	487,933	452,839	390,615	317,509

See explanatory information and SOURCE at end of table.

Table B-38. Industry-sponsored R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	1992	1991	1990	1989	1988	1987	1986	1985
51 Univ of Missouri Columbia	7,612	9,537	9,130	6,434	4,252	4,206	4,562	3,402
52 Wayne State University	7,486	7,295	5,875	3,850	2,897	2,761	1,717	1,241
53 Univ of Cal San Diego 1/	7,485	11,225	9,135	6,824	5,055	5,902	5,995	0
54 Lehigh University	7,467	8,133	8,030	7,596	7,479	6,731	5,514	4,286
55 Emory University	7,465	6,920	7,170	6,169	4,701	3,350	2,427	2,395
56 Tulane University	7,462	6,758	5,952	5,577	5,418	4,945	4,669	4,072
57 Clemson University	7,174	6,163	7,595	3,849	3,791	3,105	2,963	1,800
58 Northwestern University	6,978	6,960	5,989	5,289	3,532	3,101	2,256	1,690
59 Mississippi State Univ	6,920	7,163	6,389	3,886	3,430	2,823	2,081	1,606
60 Case Western Reserve Univ	6,851	4,667	4,954	2,915	3,975	3,433	2,992	2,408
Total, 1st 60 instz.	810,924	749,346	700,135	618,629	532,463	493,196	425,811	340,409
61 Auburn University	6,807	6,450	5,541	4,111	2,615	3,112	2,805	2,699
62 University of Georgia	6,679	5,821	5,797	4,877	5,659	4,982	4,360	3,729
63 Baylor Col of Medicine	6,630	7,294	7,746	7,263	5,329	4,879	3,772	4,241
64 U of Cal San Francisco 1/	6,573	5,475	5,276	6,226	5,127	4,008	4,119	0
65 Columbia Univ Main Div	6,454	6,619	5,618	5,408	4,841	3,915	4,086	4,027
66 Wake Forest University	6,392	5,927	5,642	4,859	4,183	2,402	1,768i	1,509i
67 Michigan State University	6,304	4,693	4,557	4,068	3,615	3,137	2,989	2,686
68 Virginia Commonwith Univ	6,285	6,201	4,835	3,910	3,283	3,192	2,195	2,019
69 Stevens Institute of Tech	6,237	1,635	980	600	1,966	1,852	1,766i	1,322i
70 Univ of Cal Davis 1/	6,125	6,599	7,461	8,039	6,975	5,324	4,510	0
Total, 1st 70 insts.	875,410	806,060	753,568	667,990	576,056	529,999	458,181	362,641
71 University of Connecticut	5,831	7,421	6,388	4,996	4,310	3,729	4,090	4,572
72 Arizona State University	5,790	6,860	7,354	2,382	2,832	5,575	3,081	2,441
73 West Virginia University	5,585	11,163	10,082	3,953	754	862	899	586
74 Colorado School of Mines	5,542	4,847	4,060	3,793	2,647	1,995	2,516	2,160
75 San Jose State University	5,498	586	599	609	595	878i	779i	679i
76 Univ of Mass - Amherst	5,466	--	--	--	--	--	--	--
77 Univ of Med & Dent of N J	5,337	3,471	2,908	2,583	1,983	1,421	1,322e	855e
78 U Tex Hlth Sci Ctr S Anto	5,288	6,876	6,166	5,535	4,908	4,404	4,302	3,458
79 Syracuse University	5,195	4,405	3,851	3,937	2,595	3,975	7,397	2,296
80 Utah State University	5,167	2,155	2,089	1,315	1,529	1,316	1,440	1,365
Total, 1st 80 insts.	930,089	853,846	797,085	697,093	598,209	554,154	483,987	381,057
81 U Tex Hlth Sci Ctr Houstn	5,144	6,392	5,142	3,266	3,385	3,494	3,661	1,217
82 Univ of South Florida	5,127	6,091	4,250	327	144	117	84	75
83 University of Delaware	5,075	4,732	4,397	4,073	3,558	3,659	3,551	2,809
84 Georgetown University	4,947	4,549	3,382	4,370	2,972	2,536	1,906	2,561
85 University of Kansas	4,877	4,228	4,473	2,809	2,934	3,259	2,527	1,426i
86 Texas Tech University	4,815	4,428	4,391	4,393	4,229	3,857	3,967	3,650
87 Univ of Texas at Austin	4,814	5,734	3,507	2,694	3,175	3,161	2,677	2,136
88 Medical College of Wis	4,684	4,175	3,189	3,684	3,243	2,018	1,422	1,131
89 University of Notre Dame	4,658	4,952	3,965	4,204	3,114	2,824	2,743	2,502
90 University of Akron	4,651	3,813	3,873	2,591	2,422	2,426	2,256	1,056
Total, 1st 90 insts.	978,881	902,940	837,614	729,504	627,385	581,505	508,781	399,620
91 CUNY Mt Sinai Sch of Med	4,642	3,978	4,053	3,732	2,982	2,870	950	1,426
92 Rockefeller University	4,623	4,816	4,918	3,453	3,764	3,476	3,321	2,861
93 New York University	4,588	5,947	5,260	4,086	3,677	3,036	4,292	3,742
94 Desert Research Institute	4,466	3,670	3,329	3,079	2,868	3,289	2,972	2,402
95 U of VT & State Agr Coll	4,337	4,181	3,473	3,486	3,139	2,877	3,331	2,613
96 Princeton University	4,322	4,595	4,964	5,640	4,487	4,122	2,989	1,184
97 University of Oklahoma	4,319	3,530	2,562	1,991	1,950	2,026	2,513	2,328
98 University of Dayton	4,307	4,359	4,790	4,164	4,013	3,335	2,786	2,556
99 Colorado State University	4,213	3,360	2,883	2,432	1,525	1,178	1,423	6,467
100 Temple University	4,155	3,452	2,707	2,544	3,899	0	0	274
Total, 1st 100 insts.	1,022,853	944,848	876,553	784,091	659,489	607,714	533,358	425,473

See explanatory information and SOURCE at end of table.

Table B-38. Industry-sponsored R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	1992	1991	1990	1989	1988	1987	1986	1985
101 Rice University	4,147	3,600	3,616	3,232	1,195	1,182i	1,066i	1,054
102 University of Utah	4,124	2,908	3,443	2,700	2,248	2,268	1,819	1,706
103 University of Idaho	4,064	4,447	3,731	3,768	3,339	2,630	2,670	2,793
104 Univ of Ark Fayetteville	4,051	3,323	2,947	2,444	3,112	2,353	2,585	2,093
105 U Tex Med Brnch Galveston	3,978	2,652	2,260	1,847	1,781	1,146	1,274i	917
106 New Mexico State Univ	3,958	4,939	7,293	6,242	7,844	9,847	6,985	6,237e
107 Univ of Central Florida	3,947	4,287	3,813	2,580	1,864	1,990i	1,940i	1,514
108 University of Cincinnati	3,942	4,050	4,468	4,160	3,449	2,299	1,655	1,880
109 Univ of Cal Irvine 1/	3,825	4,163	3,115	4,582	5,181	4,722	4,295	0
110 Vanderbilt University	3,794	1,941	2,313	2,759	7,938	5,313	4,356	3,376
Total, 1st 110 insts.	1,062,883	981,158	913,552	798,425	697,440	641,464	562,003	447,043
111 Univ of Mass - Lowell	3,770	3,599	3,892	2,849	2,626	1,201	816	1,059
112 Univ of Nebraska-Lincoln	3,712	2,806	3,394	2,675	2,204	1,938	1,985	1,721
113 Indiana University	3,589	2,367	2,316	2,591	2,658	4,597	3,325	2,718
114 University of Louisville	3,547	3,093	1,403	1,697	400	403	0	0
115 Univ of Maine Orono	3,545	4,719	4,663	4,002	2,823	2,051	2,856	1,559
116 Univ of Ill Chicago	3,539	4,844	5,157	5,333	2,664	1,728	1,490	909
117 Univ of Mass - Worcester	3,485	--	--	--	--	--	--	--
118 Loyola Univ - Chicago	3,442	1,545	1,398	1,305	475	407	639	523
119 Drexel University	3,429	2,873	3,886	4,202	2,928	2,468	2,940	2,237
120 Univ of NC at Chapel Hill	3,298	3,677	2,179	579	409	509	1,138	1,177
Total, 1st 120 insts.	1,098,019	1,010,681	941,842	823,658	714,627	656,766	577,192	458,946
121 California Inst of Tech	3,280	2,764	2,268	3,567	3,273	3,436	3,806	2,678
122 Univ of Alaska Fairbanks	3,275	1,547	4,100	3,039	2,672e	3,024i	2,936i	2,878i
123 Rush University	3,218	4,092	3,622	3,714	2,139	1,320	1,447	736
124 Oklahoma State University	3,132	2,473	1,983	1,645	3,761	3,170	3,054	2,972
125 Oregon State University	3,115	3,776	3,167	2,285	1,944	1,890	4,650i	4,245
126 Montana State University	2,983	4,043	3,833	2,902	2,770	2,454i	2,138	1,628
127 Michigan Tech University	2,946	4,150	3,999	3,584	2,901	2,740	2,490	2,511
128 The Medical Col of Penna	2,938	2,496	1,263	0	0	0	321i	309i
129 SUNY at Stony Brook	2,890	2,783	2,426	3,093	1,624	1,269	1,382	1,412
130 Med Univ of S. Carolina	2,868	2,115	2,264	2,089	1,849	1,548	1,379	1,143
Total, 1st 130 insts.	1,128,664	1,040,920	970,747	849,576	737,560	677,617	600,795	479,460
131 University of Wyoming	2,841	2,000	2,001	1,535	1,800	1,216	1,779	1,821
132 Loma Linda University	2,750	2,508	3,266	1,984	1,390	420	323i	350
133 Creighton University	2,654	3,357e	3,866e	5,229	5,589	4,143i	2,793i	1,345
134 University of Tulsa	2,649	2,548	2,330	2,020	2,093	1,808i	1,457i	1,169e
135 Dartmouth College	2,638	2,719	2,251	1,768	1,273	1,024	930i	659i
136 Kans St U - Ag & App Sci	2,586	2,389	2,483	1,790	2,031	1,515	779	721
137 Washington State Univ	2,459	2,074	2,523	2,258	3,335	2,619	2,261	1,465
138 U of Cal Santa Barbara 1/	2,447	2,379	2,655	2,645	2,108	1,970	2,097	0
139 Univ of Tex at Arlington	2,351	2,884	2,286	2,407	1,858	1,138	776	739
140 Clarkson University	2,315	2,051	1,638	1,282	978	1,113	1,288	848
Total, 1st 140 insts.	1,154,354	1,085,829	996,086	872,474	760,015	694,583	615,278	488,577
141 Oregon Grad Inst Sci/Tech	2,244	1,673	1,591	1,573	1,225	1,722	1,746i	1,710i
142 Brigham Young University	2,241	1,817	1,845	1,488	1,438	2,150	2,075i	2,001
143 The University of Alabama	2,240	2,396	1,798	2,082	1,448	1,354	1,800	852
144 N J Inst of Technology	2,173	2,018	1,710	1,125	1,001	1,026	680	297
145 U of Neb Med Ctr at Omaha	2,163	1,682	1,595	1,194	792	583	558	549
146 Univ of Missouri Rolla	2,147	1,564	2,186	2,365	3,280	1,153	1,338	1,416
147 Institute of Textile Tech	2,143	2,045	1,869	1,311	1,678	1,238	1,172i	1,109i
148 Medical Col of Georgia	2,090	1,731	1,920	1,810	1,078	1,011	955	705
149 Southern Ill U-Carbondale	2,004	2,190	1,894	1,504	1,117	1,191	1,595	1,811
150 Alfred University	1,988	1,720	1,672	1,475	1,432	1,323	984	496
Total, 1st 150 insts.	1,175,787	1,094,665	1,014,136	888,421	774,504	707,334	628,181	499,523

See explanatory information and SOURCE at end of table.

Table B-38. Industry-sponsored R&D expenditures at universities and colleges: fiscal years 1985-92

[Dollars in thousands]

Institution ranking	1992	1991	1990	1989	1988	1987	1986	1985
151 Polytechnic University	1,972	1,972	2,278	2,821	1,405	1,245	500	408
152 Univ Alabama Huntsville	1,963	1,847	2,529	2,170	1,369	992	914	649
153 Florida Atlantic Univ	1,943	1,736	639	626	1,023	999	742	389e
154 Brown University	1,882	2,497	3,307	4,291	5,086	4,250	3,848	3,000
155 San Diego State Univ	1,865	1,980	1,994	2,303	1,815	1,353	1,012	1,055
156 Univ of New Hampshire	1,813	1,278	1,464	1,183	1,124	1,057	648	895
157 University of Toledo	1,798	1,861	1,885	1,152	703	481i	260	100
158 SUNY Col of Env Sci & For	1,793	1,707	1,867	1,716	1,493	1,153	991i	932
159 Ohio University	1,779	839	454	393	100	62	88	180
160 University of Mississippi	1,742	1,366	1,250	1,085	998	766	441	890
Total, 1st 160 insts.	1,194,337	1,101,748	1,031,803	906,161	789,620	719,692	637,625	508,021
161 Univ of North Texas	1,712	1,357	915	1,004	783	714	353	347
162 Univ of South Alabama	1,703	1,788	1,553	1,277	1,118	914	896	1,010
163 Yeshiva University	1,650	1,601	0	0	0	0	0	0
164 Worcester Poly Institute	1,603	1,595	1,632	1,683	2,028	1,815	2,090i	2,126i
165 U of Houston	1,595	1,608	1,529	1,375	1,940	1,959	2,851	1,925
166 Florida Inst of Tech	1,575	1,942	1,205	567	518	216	415	193
167 Catholic Univ of America	1,544	1,064	615	477	313	108	187	323e
168 SUNY at Binghamton	1,505	1,761	1,308	1,126	909	836	705	524
169 George Mason University	1,489	1,552	742	348	215i	164	113i	67i
170 East Carolina University	1,470	1,498	1,692	1,584	1,044	1,029	856	777i
Total, 1st 170 insts.	1,210,183	1,117,514	1,042,994	915,602	798,488	727,445	646,091	515,313
171 Northern Illinois Univ	1,458	1,629	2,351	1,656	1,152	890	824	624i
172 Northeastern University	1,444	2,491i	1,711	953	730	561	525	615
173 New York Medical College	1,429	1,981	1,706	878	2,287	800	656	586
174 University of Chicago	1,399	1,425	1,202	1,520	1,814	1,812	1,203	1,044
175 U of MD Baltimore County	1,363	1,043e	596e	418e	159e	226e	212e	231e
176 University of Detroit	1,363	1,091	1,244	1,125	754	616i	573i	501i
177 U of Arkansas Med Sci Cam	1,330	1,191	1,117	1,679	753	476	483	279
178 Florida A & M University	1,291	142	145	393	366	0	253i	0
179 Univ of Rhode Island	1,253i	1,212	1,071	2,014e	3,544	1,130	752i	375
180 North Dakota State Univ	1,193	1,455	1,289	1,257	1,246	1,995	1,892	1,234i
Total, 1st 180 insts.	1,223,706	1,131,174	1,055,426	927,495	811,293	735,951	653,464	520,802
181 George Washington Univ	1,181	1,248	988	1,100	990	359	399i	440
182 Univ of Texas at Dallas	1,157	2,403	740	756	785	658	421	59
183 Illinois Inst of Tech	1,145	1,660	1,819	2,089	1,465	1,002	954	870
184 CUNY City College	1,105	1,032	442	667	607	1,397	935i	596
185 Tenn Technological Univ	1,097	871	945	836	274	371	309i	248
186 Idaho State University	1,083	603	475	411	315	269	117	33
187 SUNY at Albany	1,080	876	727	657	399	271	300	144
188 Univ of N C at Charlotte	1,049	815	381	658	350	236i	208i	182i
189 Northern Arizona Univ	1,048	568	466	389	119	243	192	142
190 Oregon Hlth Sciences Univ	1,043	1,099	1,325	706	1,094	243	458	104
Total, 1st 190 insts.	1,234,694	1,142,349	1,063,734	935,764	817,691	741,000	657,757	523,620
191 Univ of Missouri Kan City	1,032	1,342	1,383	1,330	1,776	1,082	820	547
192 Old Dominion University	1,011	979	581	353	64	308	316i	221i
193 Univ of P R-Mayaguez	1,008	650i	293	222	187	0	3i	3i
194 Woods Hole Oceanphic inst	992	786e	532	916	1,300	667	574	646
195 Western Michigan Univ	947	843	1,102	852i	603	710	519	428
196 Univ of Nevada - Reno	916	1,276	1,227	1,019	695	687	425i	313i
197 Union College (NY)	872	718i	615i	514i	410i	308i	205i	50
198 Univ of North Dakota	863	853	1,556	1,264	1,496e	1,583	1,180i	1,082i
199 Univ of Cal Riverside 1/	857	1,361	903	1,094	1,692	1,955	2,041	0
200 Wichita State University	839	675	657	566	663	659	492	345
Total, 1st 200 insts.	1,244,031	1,151,832	1,072,583	943,916	826,597	748,939	664,332	527,235
Total, all other sampled insts.	28,493	42,925	44,444	41,078	45,363	41,222	35,427	32,792
Estimated total non-sampled insts.	29,494	15,152	13,370	13,437	0	0	0	0

1/ Data for the University of California in fiscal year 1986 and subsequent years include industry-supported R&D expenditures for the first time. Industry data are not available for fiscal years prior to 1986.

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-39. R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
Total, all institutions	18,879,705	3,082,262	2,057,842	1,248,800	802,664	10,227,816	336,107	817,209	307,006
1 Johns Hopkins Univ	735,542	225,382	130,059	41,082	86,820	226,247	1,047	8,294	16,611
2 University of Michigan	393,059	64,901	23,872	20,533	24,477	195,922	11,439	44,451	7,464
3 Stanford University	367,980	107,500	75,680	6,882	13,347	155,678	3,698	5,195	0
4 Univ of Wis-Madison	352,706	46,312	35,224	21,726	8,426	202,187	10,389	25,441	3,001
5 Mass Inst of Technology	324,453	140,969	95,935	13,069	16,406	38,101	8,018	6,467	5,488
6 University of Minnesota	317,026	26,053	16,190	11,830	18,391	224,221	6,341	14,000	0
7 University of Washington	313,514	18,352	17,623	59,379	9,824	192,469	6,315	8,115	1,437
8 Texas A & M University	305,390	77,462	16,905	65,732	4,740	122,997	1,501	12,224	3,829
9 Cornell University	299,342	43,951	44,587	5,106	27,235	163,950	3,570	10,923	20
10 Univ of Cal San Francisco	295,784	0	0	0	0	295,784	0	0	0
Total, 1st 10 insts.	3,704,796	750,882	456,075	245,339	209,666	1,817,556	52,318	135,110	37,850
11 Univ of Cal Berkeley	284,545	62,178	61,408	5,259	6,943	118,846	7,088	19,053	3,770
12 Univ of Cal San Diego	282,114	6,173	44,711	73,193	10,799	141,979	2,914	2,345	0
13 Pennsylvania State Univ	276,305	119,878	18,737	17,918	4,132	90,125	6,302	9,934	11,279
14 Univ of Cal Los Angeles	270,954	28,471	25,369	13,151	7,716	170,979	8,225	17,043	0
15 Harvard University	253,126	2,695	27,740	9,839	2,726	157,253	3,609	43,787	5,477
16 University of Ill Urbana	251,970	53,044	39,935	26,970	21,263	58,097	6,289	11,241	35,131
17 Univ of Texas at Austin	228,545	85,430	58,507	28,888	14,354	19,472	2,765	12,890	6,239
18 Univ of Pennsylvania	222,424	14,469	18,434	257	7,694	158,321	1,987	17,563	3,699
19 University of Arizona	221,999	19,539	59,235	20,306	5,258	105,187	1,978	8,492	2,002
20 Univ of MD College Park	219,041	47,808	66,810	10,599	12,796	62,624	3,494	14,953	0
Total, 1st 20 insts.	6,217,819	1,190,585	876,961	451,680	303,347	2,900,439	96,969	292,411	105,447
21 Yale University	211,589	7,700	19,707	2,309	5,821	167,790	4,672	3,570	0
22 Univ of Cal Davis	209,282	12,364	8,670	943	771	183,504	677	2,353	0
23 Ohio State University	203,291	43,764	16,772	6,728	9,336	106,349	1,004	16,422	2,916
24 Columbia Univ Main Div	199,516	17,526	16,152	27,480	4,318	127,113	1,938	4,989	0
25 Univ of Southern Cal	194,740	26,816	8,200	12,736	35,749	95,233	10,191	5,570	245
26 Duke University	188,678	7,515	11,358	3,492	2,301	151,282	4,536	8,192	0
27 Georgia Institute of Tech	180,263	122,215	18,392	7,128	20,471	2,687	1,463	7,736	171
28 Univ. of Colorado	176,266	22,714	24,521	28,725	4,106	84,498	6,752	4,948	0
29 Washington University	170,339	3,120	7,136	2,274	6,732	149,515	554	1,008	0
30 Baylor Col of Medicine	167,998	0	0	0	0	167,998	0	0	0
Total, 1st 30 insts.	8,119,761	1,454,299	1,007,869	543,495	392,954	4,136,408	128,758	347,199	108,779
31 University of Georgia	165,279	4,375	7,501	6,252	6,043	116,753	4,237	20,118	0
32 Rutgers the St Univ of NJ	162,089	24,726	20,500	8,507	13,601	69,760	7,029	15,609	2,357
33 Univ of NC at Chapel Hill	161,549	0	7,992	7,989	9,186	120,223	2,235	13,924	0
34 University of Pittsburgh	157,250	8,247	11,932	385	1,828	127,935	2,280	4,014	629
35 Louisiana State Univ Sys	151,844	22,443	10,795	17,877	2,198	90,969	993	5,515	1,054
36 N C State Univ at Raleigh	143,008	44,797	6,951	6,503	5,332	76,021	360	3,044	0
37 Michigan State University	142,308	16,382	23,511	1,967	538	81,787	3,293	7,420	7,410
38 Northwestern University	141,975	20,049	11,692	735	4,948	70,979	1,536	1,689	30,347
39 Purdue University	140,260	37,949	15,814	2,155	6,538	69,657	1,908	6,065	174
40 University of Florida	140,189	24,476	10,860	5,493	4,860	87,227	2,152	3,636	1,485
Total, 1st 40 insts.	9,625,512	1,657,743	1,135,417	601,358	448,046	5,047,719	154,781	428,233	152,215
41 University of Rochester	139,992	29,559	13,472	294	2,205	87,647	5,812	817	186
42 University of Iowa	135,418	12,214	20,949	421	1,805	94,968	1,051	3,851	159
43 Iowa St U of Sci & Tech	132,580	31,512	4,623	446	10,859	71,224	911	9,046	3,959
44 Univ. Of Tennessee System	131,240	27,569	11,957	11,993	10,026	64,084	423	4,233	955
45 VA Polytech Inst & St U	130,994	49,830	9,403	11,891	2,721	51,855	1,463	3,831	0
46 SUNY at Buffalo	128,428	28,827	7,503	689	6,723	76,580	4,182	3,808	116
47 University of Connecticut	124,010	23,024	3,242	7,300	3,691	73,136	5,754	6,344	1,519
48 New York University	122,399	0	4,400	208	10,862	95,774	3,787	6,979	389
49 Case Western Reserve Univ	118,391	25,066	4,828	439	408	82,364	1,107	4,179	0
50 University of Chicago	118,123	0	27,867	3,156	3,262	79,388	1,539	2,911	0
Total, 1st 50 insts.	10,907,087	1,885,344	1,243,661	638,195	500,608	5,824,739	180,810	474,232	159,498

See explanatory information and SOURCE at end of table.

Table B-39. R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
51 Univ Alabama Birmingham	117,844	4,039	561	450	251	111,432	887	224	0
52 Indiana University	117,565	998	29,730	1,606	2,110	69,349	3,907	4,588	5,217
53 UT MD Anderson Cancer Ctr	112,121	0	3,772	0	2,476	105,873	0	0	0
54 California Inst of Tech	111,733	19,203	47,840	13,114	5,529	24,954	0	430	663
55 Carnegie-Mellon Univ	110,571	27,183	6,484	2,232	51,040	12,957	4,682	4,986	1,007
56 University of Virginia	110,103	18,938	12,510	6,192	4,192	60,441	2,655	4,052	1,073
57 University of Utah	108,486	14,501	11,180	4,229	7,903	69,005	1,172	496	0
58 Univ of MD Balt Prof Sch	107,830	0	0	0	0	107,830	0	0	0
59 Oregon State University	107,573	9,169	4,762	24,122	2,404	62,669	141	2,868	1,438
60 Univ of Ill Chicago	102,267	8,795	7,605	1,179	2,969	75,258	1,757	3,879	825
Total, 1st 60 insts.	12,013,180	1,988,220	1,368,105	691,379	579,482	6,524,507	196,011	495,755	169,721
61 UT SW Medical Ctr-Dallas	102,263	0	0	0	0	102,263	0	0	0
62 Emory University	101,398	0	6,574	3	217	89,463	926	4,215	0
63 SUNY at Stony Brook	98,906	3,355	20,580	11,799	5,477	52,657	2,069	2,130	839
64 University of Miami	98,786	1,696	1,276	19,840	381	71,815	1,186	2,554	38
65 Univ of Missouri Columbia	97,242	10,702	5,101	1,687	374	71,032	1,337	6,538	471
66 Vanderbilt University	96,784	8,309	6,663	138	536	75,026	1,844	4,208	60
67 Princeton University	93,958	21,289	25,628	7,150	7,646	16,684	5,853	9,708	0
68 University of Kentucky	92,244	16,601	2,204	203	961	65,787	264	1,588	4,636
69 University of Oklahoma	92,146	13,866	6,807	9,192	4,997	40,591	2,958	11,593	2,142
70 Univ of Nebraska-Lincoln	91,427	12,141	7,306	6,941	1,178	60,593	725	2,300	243
Total, 1st 70 insts.	12,978,334	2,076,179	1,450,244	748,332	601,249	7,170,418	213,173	540,589	178,150
71 Utah State University	89,776	38,155	6,767	10,643	529	23,233	1,763	1,479	7,207
72 Univ of Cal Irvine	89,275	6,101	14,095	130	4,185	59,902	5	4,286	571
73 Colorado State University	88,132	15,625	6,241	10,882	1,337	44,617	2,868	6,562	0
74 Yeshiva University	87,196	0	0	0	0	87,196	0	0	0
75 Washington State Univ	85,080	7,623	3,577	667	606	56,626	257	8,892	6,832
76 Univ of Med & Dent of N J	84,505	0	0	0	0	84,505	0	0	0
77 New Mexico State Univ	83,900	46,532	2,772	8,631	3,161	20,452	53	1,501	798
78 Boston University	83,701	5,579	10,394	177	2,907	58,315	381	1,629	4,319
79 University of Cincinnati	83,176	19,056	4,991	144	517	55,123	207	840	2,498
80 Woods Hole Ocngrphic Inst	82,845	13,129	0	69,716	0	0	0	0	0
Total, 1st 80 insts.	13,835,920	2,227,979	1,499,081	849,322	614,491	7,660,387	218,707	565,578	200,375
81 Wayne State University	81,127	5,758	10,917	0	1,059	56,634	1,876	2,603	2,280
82 Univ of Hawaii-Manoa	80,258	1,715	22,477	17,406	924	28,153	295	3,473	5,815
83 University of New Mexico	80,071	26,979	4,069	1,499	1,036	33,502	1,537	7,829	3,620
84 Clemson University	77,579	23,977	4,757	750	3,613	37,240	239	5,575	1,428
85 CUNY Mt Sinai Sch of Med	75,561	0	0	0	0	75,561	0	0	0
86 Rockefeller University	75,102	0	7,145	0	953	67,004	0	0	0
87 University of Kansas	75,004	5,027	7,354	7,812	280	42,582	1,437	408	10,108
88 Tulane University	72,190	6,682	2,224	272	747	53,194	712	7,855	504
89 Oklahoma State University	71,238	14,335	5,834	1,418	639	38,613	407	6,634	3,358
90 Arizona State University	69,346	21,491	15,546	8,830	2,628	7,291	2,947	7,702	2,911
Total, 1st 90 insts.	14,593,396	2,333,943	1,579,404	887,309	626,370	8,100,161	228,157	607,655	230,397
91 Virginia Commonwith Univ	69,189	167	2,244	0	303	64,331	550	1,594	0
92 Univ of South Florida	68,713	12,458	2,009	7,867	111	42,200	3,242	809	17
93 Univ of Alaska Fairbanks	67,861	3,347	13,380	31,109	88	16,880	0	3,077	0
94 Auburn University	66,773	18,156	4,408	233	640	40,989	134	415	1,798
95 Univ of Cal Santa Barbara	66,007	23,647	15,649	10,488	4,505	2,736	2,861	6,121	0
96 Mississippi State Univ	65,754	18,116	1,852	1,043	175	36,247	2	3,414	4,905
97 U Tex Hlth Sci Ctr S Anto	65,179	0	0	0	0	65,179	0	0	0
98 Georgetown University	64,937	0	5,426	846	1,162	54,878	81	2,414	130
99 Univ of Mass - Amherst	62,990	10,479	16,122	6,158	9,517	16,490	2,916	467	841
100 Unif Serv Univ of Hlth Sc	59,171	0	0	0	0	59,171	0	0	0
Total, 1st 100 insts.	15,249,990	2,420,313	1,640,494	945,053	642,871	8,499,262	237,943	625,966	238,088

See explanatory information and SOURCE at end of table.

Table B-39. R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
101 Kans St U - Ag & App Sci	57,723	8,397	3,831	252	982	41,541	321	1,395	1,004
102 U Tex Med Brnch Galveston	57,672	0	0	0	0	57,672	0	0	0
103 Univ of Cal Riverside	57,536	132	4,178	1,344	762	49,488	774	858	0
104 U Tex Hlth Sci Ctr Houstn	56,497	0	0	0	0	55,900	0	597	0
105 Brown University	55,585	9,707	7,964	5,106	8,989	19,652	1,518	2,649	0
106 Univ of South Carolina	54,360	10,161	6,390	11,835	1,787	15,603	2,025	5,853	906
107 Temple University	53,921	1,196	1,838	13	661	34,144	5,720	10,325	24
108 Dartmouth College	53,668	5,536	2,238	1,093	789	43,070	400	149	393
109 Univ of Mass - Worcester	53,342	0	0	0	0	53,342	0	0	0
110 West Virginia University	52,482	9,812	2,490	5,386	6,240	25,486	99	2,202	767
Total, 1st 110 insts.	15,802,776	2,465,254	1,669,423	970,082	663,081	8,895,160	248,800	649,794	241,182
111 Rensselaer Polytech Inst	50,769	37,898	7,162	951	2,948	777	145	334	556
112 Tufts University	50,633	2,088	1,631	3,688	124	40,966	782	1,354	0
113 Florida State University	50,178	677	23,119	10,288	2,222	7,470	2,151	4,251	0
114 Wake Forest University	49,919	0	746	0	105	48,901	0	0	167
115 U of VT & State Agr Coll	49,542	936	924	239	235	45,533	879	54	742
116 Oregon Hlth Sciences Univ	49,313	0i	0i	0i	0i	47,684i	1,629i	0i	0i
117 University of Delaware	48,970	12,198	7,906	7,746	2,317	11,595	509	6,699	0
118 U of Houston	44,957	25,305	8,291	897	1,168	5,978	2,353	721	244
119 Univ of Ark Fayetteville	44,768	7,981	4,039	1,111	902	26,812	559	2,476	888
120 University of Idaho	44,140	8,288	2,004	2,588	146	29,427	46	1,641	0
Total, 1st 120 insts.	16,285,965	2,560,625	1,725,245	997,590	673,246	9,160,303	257,853	667,324	243,779
121 Medical College of Wis	43,579	0	0	0	0	43,579	0	0	0
122 Thomas Jefferson Univ	41,329	0	0	0	0	41,329	0	0	0
123 University of Dayton	40,909	36,086	1,116	348	1,516	401	1,041	302	99
124 Univ of Rhode Island	40,842e	4,937i	1,006i	18,439i	245i	10,203i	2,798i	2,389i	825i
125 George Washington Univ	39,335	6,637	1,240	23	5,965	17,910	530	7,025	5
126 Univ of Nevada - Reno	37,546	4,875	1,184	4,699	31	16,328	115	1,790	8,524
127 SUNY Hlth Sci Ctr - Brkn	37,071	0	0	0	0	37,071	0	0	0
128 Texas Tech University	36,869	8,806	4,251	1,080	939	18,149	187	2,780	677
129 Univ of Cal Santa Cruz	36,413	0	16,209	9,856	1,310	6,473	657	1,908	0
130 SUNY at Albany	35,856	0	3,012	6,255	816	19,373	3,123	3,277	0
Total, 1st 130 insts.	16,675,714	2,621,966	1,753,263	1,038,290	684,068	9,371,119	266,304	686,795	253,909
131 Brandeis University	35,229	0	3,348	0	1,078	16,177	1,453	13,173	0
132 North Dakota State Univ	34,466	4,325	2,885	40	848	24,045	262	1,862	199
133 Montana State University	34,419	5,723	3,742	457	651	22,634	0	1,212	0
134 Univ of New Hampshire	33,744	4,217	1,096	18,339	736	6,844	165	1,848	497
135 Syracuse University	32,145	5,325	5,378	1,313	10,146	5,362	786	3,800	35
136 Univ Alabama Huntsville	32,017	13,206	11,444	2,644	3,571	526	0	104	522
137 Med Univ of S. Carolina	31,900	0	0	0	0	31,900	0	0	0
138 Lehigh University	31,822	23,621	5,357	506	837	801	270	430	0
139 U of Neb Med Ctr at Omaha	31,564	0	0	0	0	31,564	0	0	0
140 San Diego State Univ	30,683	3,619	1,351	492	2,191	13,414	3,208	1,341	5,067
Total, 1st 140 insts.	17,003,703	2,682,002	1,787,864	1,062,081	704,128	9,524,386	272,448	710,585	260,229
141 University of Oregon	30,242	1,913	11,531	2,880	984	9,453	2,174	1,307	0
142 University of Wyoming	30,181	3,832	1,996	5,742	1,289	13,987	291	312	2,732
143 Loyola Univ - Chicago	30,099	0	472	0	1,087	27,683	243	611	3
144 Rice University	29,424	4,566	9,191	2,878	9,319	2,999	372	99	0
145 Southern Ill U-Carbondale	28,094	4,999	1,829	449	1,904	12,708	399	1,447	4,359
146 Univ of Central Florida	27,629	4,885	7,909	7,107	716	688	579	326	5,419
147 Rush University	26,184	0	0	0	0	24,000	2,184	0	0
148 The Medical Col of Penna	25,835	0	0	0	0	25,835	0	0	0
149 Univ of P R-Mayaguez	25,238	1,223i	108i	967i	211	22,800i	21i	0i	98i
150 N Mex Inst Mining & Tech	25,208	16,797	2,008	5,891	330	182	0	0	0
Total, 1st 150 insts.	17,261,837	2,720,217	1,822,908	1,087,995	719,778	9,684,721	278,711	714,667	272,840

See explanatory information and SOURCE at end of table.

Table B-39. R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
151 University of Mississippi	23,361	3,051	5,034	0	94	14,250	240	692	0
152 Univ of Maine Orono	23,213	3,368	666	4,448	70	12,443	283	1,935	0
153 Drexel University	23,184	13,978	3,301	848	1,546	1,930	327	1,254	0
154 University of Notre Dame	22,679	6,641	11,706	171	464	3,145	252	146	154
155 The University of Alabama	22,573	7,707	5,326	1,519	850	2,711	791	3,504	165
156 Florida A & M University	22,230	3,223	2,203	0	89	16,698	5	12	0
157 Medical Col of Georgia	21,426	0	0	0	0	21,426	0	0	0
158 N J Inst of Technology	21,126	5,215	1,613	8,396	618	0	0	15	5,269
159 Desert Research Institute	20,579	0	0	15,397	50	2,552	0	2,580	0
160 US Naval Postgrad School	20,412	6,232	2,174	3,231	4,920	0	0	2,743	1,112
Total, 1st 160 insts.	17,502,620	2,769,632	1,854,931	1,122,005	728,479	9,739,876	280,609	727,548	279,540
161 St Louis University	19,932	0	17	659	34	19,222	0	0	0
162 College of William & Mary	18,890	0	3,885	13,018	725	898	192	172	0
163 Univ of Wis-Milwaukee	18,587	3,243	3,149	3,075	407	2,293	489	4,889	1,021
164 U of MD Center For EES	18,557	0	0	18,557	0	0	0	0	0
165 SUNY Col of Env Sci & For	18,456	6,003	1,092	1,846	152	9,189	0	174	0
166 San Jose State University	18,326	8,672	1,538	5,300	172	314	2,165	165	0
167 Univ of North Dakota	18,265	10,011	218	1,577	0	5,006	7	794	652
168 Michigan Tech University	18,179	11,827	1,724	580	174	2,815	0	919	140
169 Howard University	17,576	4,316	1,722	1	303	9,534	447	1,131	122
170 Wright State University	17,401	2,641	2,762	285	797	9,346	490	50	1,030
Total, 1st 170 insts.	17,686,769	2,816,345	1,871,038	1,166,903	731,243	9,798,494	284,399	735,842	282,505
171 University of Louisville	17,400	1,325	1,202	399	74	12,998	50	1,352	0
172 Hahnemann University	17,332	0	0	0	0	17,332	0	0	0
173 New York Medical College	16,799	0	0	0	0	16,799	0	0	0
174 CUNY City College	16,454	5,520	5,367	480	529	3,008	926	100	526
175 U of Arkansas Med Sci Cam	15,889	0	0	0	0	15,889	0	0	0
176 Northeastern University	15,876	5,847	3,269	0	1,897	3,441	904	518	0
177 Univ of Missouri Rolla	15,619	11,465	2,603	248	343	187	3	57	713
178 Univ of Mass - Lowell	14,880	4,605	3,785	105	482	2,716	5	0	3,182
179 Ohio University	14,811	8,294	1,323	129	63	4,767	75	117	43
180 Stevens Institute of Tech	14,580	13,791	651	0	77	0	0	61	0
Total, 1st 180 insts.	17,846,409	2,867,192	1,899,238	1,168,264	734,708	9,875,569	286,362	738,077	286,999
181 Brigham Young University	14,469	6,912	2,555	213	408	2,772	154	441	1,014
182 University of Akron	14,437	5,414	7,289	118	726	300	151	439	0
183 SUNY Hlth Sci Ctr - Syrcs	13,898	0	0	0	0	13,898	0	0	0
184 Univ of Tex at Arlington	13,898	8,285	3,094	514	919	640	174	150	120
185 Univ of P R-Med Sci Cmpus	13,685	0	0	0	0	13,685	0	0	0
186 Univ of Nevada, Las Vegas	13,300	2,525	691	6,243	1,439	917	13	1,247	225
187 Univ of Texas at Dallas	12,995	1,005	7,153	1,403	312	1,898	772	462	0
188 SUNY at Binghamton	12,843	2,098	1,932	977	648	1,803	2,715	2,670	0
189 Colorado School of Mines	12,783	8,320	1,469	1,810	736	0	0	108	340
190 South Dakota State Univ	12,692	870	429	902	0	9,900	0	591	0
Total, 1st 190 insts.	17,981,405	2,902,821	1,913,850	1,180,444	739,896	9,821,400	290,341	744,185	288,668
191 Oregon Grad Inst Sci/Tech	12,332	3,529	3,707	2,687	2,409	0	0	0	0
192 Univ of South Alabama	12,277	141	185	336	30	10,789	270	511	15
193 Memphis State University	12,169	1,559	355	2,741	230	2,434	3,153	1,697	0
194 George Mason University	11,930	5,119	1,036	8	3,283	659	525	1,300	0
195 NC Ag & Tech State Univ	11,914	6,720	716	0	129	4,000	107	55	187
196 Kent State University	11,656	128	8,320	248	549	791	1,308	298	15
197 Clark Atlanta University	11,483	1,312	3,519	119	1,810	4,482	0	241	0
198 Eastern VA Medical School	11,238	0	0	0	0	11,238	0	0	0
199 Cleveland State Univ	10,939	3,957	1,083	1	99	1,135	99	4,565	0
200 Med Col of Ohio at Toledo	10,905	0	0	0	0	10,905	0	0	0
Total, 1st 200 insts.	18,098,247	2,925,088	1,932,771	1,186,584	748,436	9,867,833	295,801	752,852	288,885
Total, all other sampled insts.	609,601	113,379	97,249	36,824	43,666	226,207	27,668	51,872	13,698
Estimated total non-sampled insts.	171,857	43,797	27,822	26,392	10,543	33,776	12,620	12,485	4,423

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-40. Federally financed R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Total, all institutions	11,087,032	1,754,667	1,476,443	799,184	580,159	5,892,771	221,641	278,430	103,738
1 Johns Hopkins Univ	666,696	220,774	127,434	38,508	86,579	184,460	873	4,315	3,753
2 Stanford University	265,687	79,342	60,441	4,052	10,302	107,453	2,633	1,464	0
3 University of Washington	257,840	10,061	14,210	56,500	9,252	157,375	5,878	4,564	0
4 Mass Inst of Technology	237,972	93,025	79,456	10,704	12,192	33,345	4,000	1,691	3,559
5 University of Michigan	223,452	36,413	13,028	14,600	15,774	118,810	7,296	15,910	1,621
6 Univ of Cal San Diego	219,843	3,960	39,168	50,757	6,696	116,557	2,168	537	0
7 Univ of Cal San Francisco	202,283	0	0	0	0	202,283	0	0	0
8 Univ of Wis-Madison	199,816	28,585	26,405	14,470	5,891	103,548	8,510	12,410	17
9 Univ of Cal Los Angeles	180,743	20,499	22,661	8,923	6,798	113,800	5,668	2,394	0
10 Cornell University	180,361	27,932	36,739	3,054	22,574	86,116	1,568	2,377	1
Total, 1st 10 insts.	2,634,693	520,571	419,542	201,568	176,058	1,223,747	38,594	45,662	8,951
11 Columbia Univ Main Div	174,777	13,873	15,540	27,068	3,436	108,904	1,938	4,018	0
12 Harvard University	174,632	2,110	23,826	7,640	2,572	119,764	2,418	11,130	5,172
13 University of Minnesota	165,926	12,894	12,795	4,080	15,173	112,873	4,918	3,193	0
14 Univ of Pennsylvania	159,574	9,895	15,519	158	6,679	115,035	1,928	7,221	3,139
15 Yale University	157,345	5,076	16,856	1,732	5,179	125,986	1,886	670	0
16 Pennsylvania State Univ	151,877	77,248	10,991	8,774	2,468	43,460	3,463	3,380	2,093
17 Univ of Cal Berkeley	148,954	29,710	52,529	3,376	5,009	48,466	4,029	5,385	450
18 Univ of Southern Cal	141,713	20,511	7,570	9,939	32,858	60,191	8,252	2,389	3
19 Univ. of Colorado	129,894	14,160	18,533	22,201	3,014	63,928	4,501	3,557	0
20 University of Ill Urbana	129,066	28,768	32,063	6,152	10,845	28,433	3,708	3,024	18,093
Total, 1st 20 insts.	4,166,471	734,816	625,764	292,686	263,291	2,048,767	75,615	89,629	37,901
21 Duke University	125,742	5,693	9,629	2,296	1,751	97,305	4,409	4,659	0
22 Univ of Texas at Austin	124,614	48,462	39,288	12,048	6,686	12,372	2,197	2,479	1,080
23 Washington University	123,863	1,611	5,985	1,618	4,654	108,721	483	791	0
24 University of Pittsburgh	121,077	4,132	9,792	364	1,486	101,585	2,092	1,015	611
25 Univ of NC at Chapel Hill	113,774	0	6,389	3,750	5,353	88,104	1,924	8,274	0
26 Texas A & M University	112,918	17,648	9,494	48,909	2,232	31,860	625	2,142	9
27 University of Rochester	110,413	25,786	12,069	201	2,041	66,543	2,979	743	51
28 University of Arizona	105,912	8,840	28,044	6,695	3,229	54,515	899	2,118	1,572
29 Georgia Institute of Tech	101,295	66,676	10,335	4,006	11,503	1,510	822	4,347	96
30 California Inst of Tech	99,198	16,783	43,122	12,154	5,172	21,252	0	292	423
Total, 1st 30 insts.	5,307,277	932,447	799,891	384,729	307,400	2,632,533	92,045	116,469	41,743
31 Ohio State University	97,940	16,395	12,590	4,469	3,141	49,873	698	9,075	1,701
32 University of Chicago	97,182	0	24,995	2,201	3,035	65,436	1,005	511	0
33 Univ of Cal Davis	91,318	6,447	7,367	858	438	74,989	636	583	0
34 University of Iowa	88,360	5,402	16,512	155	608	63,937	584	1,101	83
35 New York University	87,081	0	3,706	36	9,454	69,611	3,217	999	56
36 Baylor Col of Medicine	85,734	0	0	0	0	85,734	0	0	0
37 Case Western Reserve Univ	83,387	15,877	3,367	241	405	62,411	258	828	0
38 Univ of MD College Park	82,469	22,857	34,588	5,728	4,691	7,528	1,237	5,840	0
39 Univ Alabama Birmingham	82,392	444	342	83	165	80,814	627	137	0
40 Vanderbilt University	79,594	6,193	5,695	114	487	62,685	1,387	2,973	60
Total, 1st 40 insts.	6,182,734	1,006,062	909,055	398,594	329,822	3,255,360	101,672	138,536	43,643
41 University of Utah	79,386	8,315	8,976	2,592	6,473	51,938	936	156	0
42 SUNY at Buffalo	77,628	7,930	4,580	279	5,548	57,144	1,327	822	0
43 University of Miami	76,477	860	1,192	17,628	357	53,692	967	1,767	14
44 Woods Hole Oceanographic Inst	74,229	12,444	0	61,785	0	0	0	0	0
45 Univ. Of Tennessee System	72,047	15,725	7,499	8,595	7,566	30,592	294	1,560	216
46 Emory University	69,894	0	5,551	0	192	63,043	649	459	0
47 Indiana University	69,871	223	20,388	806	1,332	41,786	2,983	840	1,513
48 Carnegie-Mellon Univ	69,848	14,832	5,033	156	38,650	5,070	3,325	2,678	104
49 Northwestern University	69,241	11,812	8,755	612	3,305	37,909	1,214	408	5,226
50 Purdue University	68,224	22,140	11,876	1,467	4,124	25,469	1,363	1,613	172
Total, 1st 50 insts.	6,909,579	1,100,343	982,905	492,514	397,367	3,621,993	114,730	148,839	50,888

See explanatory information and SOURCE at end of table.

Table B-40. Federally financed R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
51 Yeshiva University	68,152	0	0	0	0	68,152	0	0	0
52 University of Virginia	68,151	11,675	9,644	4,940	3,070	36,557	2,194	19	52
53 University of Florida	67,590	11,261	5,634	2,205	2,824	43,203	928	925	610
54 Boston University	66,677	4,148	8,634	95	2,881	47,243	297	478	2,901
55 Michigan State University	66,466	5,618	16,536	844	427	34,266	1,996	3,525	3,254
56 SUNY at Stony Brook	63,608	2,278	13,900	7,197	3,727	33,866	1,752	865	23
57 New Mexico State Univ	62,872	39,864	2,297	7,370	2,683	8,912	40	975	731
58 UT SW Medical Ctr-Dallas	61,499	0	0	0	0	61,499	0	0	0
59 Colorado State University	59,766	9,945	4,807	9,028	856	29,092	2,365	3,673	0
60 Oregon State University	59,739	4,411	3,375	20,183	1,464	28,158	135	1,058	955
Total, 1st 60 insts.	7,554,099	1,189,543	1,047,732	544,376	415,299	4,012,941	124,437	160,357	59,414
61 Rutgers the St Univ of NJ	56,625	7,836	10,687	2,509	7,100	18,987	3,017	6,446	43
62 University of Cincinnati	56,375	11,152	3,237	72	284	39,596	78	113	1,843
63 Princeton University	55,722	10,989	18,933	4,526	5,429	11,044	3,237	1,564	0
64 Univ of Cal Irvine	55,331	3,006	12,759	0	3,424	33,352	0	2,305	485
65 Utah State University	54,904	31,565	4,928	4,470	341	9,957	1,524	325	1,796
66 Univ of Cal Santa Barbara	52,777	19,643	13,769	7,290	3,345	2,172	2,147	4,411	0
67 VA Polytech Inst & St U	51,281	25,142	4,178	6,130	1,289	12,344	884	1,316	0
68 CUNY Mt Sinai Sch of Med	50,853	0	0	0	0	50,853	0	0	0
69 N C State Univ at Raleigh	50,501	18,135	3,676	3,124	1,829	22,345	261	1,131	0
70 University of Georgia	48,962	605	3,050	1,342	1,967	39,128	1,502	1,368	0
Total, 1st 70 insts.	8,087,430	1,317,616	1,122,945	573,839	440,307	4,252,719	137,087	179,336	63,581
71 Louisiana State Univ Sys	48,641	6,255	5,495	7,099	504	27,990	607	624	67
72 Univ of Ill Chicago	48,484	2,318	5,252	184	1,723	36,923	1,348	666	70
73 Univ of MD Balt Prof Sch	48,088	0	0	0	0	48,088	0	0	0
74 Univ of Hawaii-Manoa	47,684	943	16,647	14,473	776	10,987	147	443	3,266
75 University of Connecticut	45,367	3,488	840	4,093	460	33,685	2,781	549	71
76 Virginia Commonwlth Univ	45,891	0	1,523	0	251	43,290	418	409	0
77 Iowa St U of Sci & Tech	45,144	14,732	2,333	186	3,666	19,752	292	3,738	445
78 Georgetown University	42,659	0	4,173	698	885	35,336	67	1,394	107
79 Tufts University	42,112	1,723	1,515	3,375	124	34,468	712	195	0
80 U Tex Hlth Sci Ctr S Anto	41,048	0	0	0	0	41,048	0	0	0
Total, 1st 80 insts.	8,543,148	1,347,075	1,160,723	603,947	448,698	4,584,285	143,459	187,354	67,607
81 University of New Mexico	40,033	17,494	2,205	895	440	15,837	1,172	1,281	709
82 University of Kentucky	39,828	6,188	1,887	69	835	28,957	207	1,239	2,446
83 Univ of Med & Dent of N J	39,092	0	0	0	0	39,092	0	0	0
84 Dartmouth College	38,791	4,172	1,764	157	685	31,826	307	31	49
85 Washington State Univ	38,213	3,732	2,741	238	416	22,342	147	2,361	6,236
86 Brown University	37,856	7,304	4,963	4,183	6,101	13,354	1,034	917	0
87 Rockefeller University	37,832	0	4,445	0	33	33,354	0	0	0
88 Wake Forest University	37,505	0	519	0	80	36,886	0	0	20
89 U Tex Hlth Sci Ctr Houstn	36,476	0	0	0	0	35,940	0	538	0
90 Wayne State University	35,569	1,709	3,036	0	326	28,707	1,341	414	36
Total, 1st 90 insts.	8,924,345	1,387,674	1,182,283	609,487	457,614	4,868,380	147,667	194,135	77,105
91 Univ of Mass - Worcester	35,413	0	0	0	0	35,413	0	0	0
92 University of Dayton	34,927	30,744	865	270	1,493	262	1,010	283	0
93 UT MD Anderson Cancer Ctr	34,492	0	1,853	0	1,078	31,561	0	0	0
94 Oregon Hlth Sciences Univ	33,548	0	0	0	0	32,210	1,338	0	0
95 Univ of Mass - Amherst	33,408	5,603	9,217	2,091	6,559	7,222	2,378	49	289
96 Tulane University	33,304	2,054	829	80	270	25,928	242	3,653	248
97 Arizona State University	33,148	5,915	8,651	8,403	1,139	4,766	2,056	2,193	25
98 U of VT & State Agr Coll	32,757	485	588	72	157	30,767	590e	0	118
99 Univ of Alaska Fairbanks	32,066	644	7,942	18,077	19	4,927	0	457	0
100 University of Kansas	31,992	2,176	2,032	848	198	19,523	770	0	5,445
Total, 1st 100 insts.	9,259,400	1,435,275	1,215,260	639,328	468,527	5,080,859	156,051	200,770	63,230

See explanatory information and SOURCE at end of table.

Table B-40. Federally financed R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
101 Mississippi State Univ	29,746	13,499	1,109	602	175	11,984	0	1,228	1,149
102 University of Oklahoma	29,733	3,857	2,366	2,807	2,603	11,742	508	5,835	17
103 Thomas Jefferson Univ	28,861	0	0	0	0	28,861	0	0	0
104 George Washington Univ	28,158	5,368	1,011	21	5,712	13,397	379	2,268	2
105 Univ of Missouri Columbia	28,047	2,667	1,405	329	325	20,848	648	1,798	27
106 West Virginia University	27,740	6,194	1,657	3,478	2,919	12,502	71	477	442
107 Medical College of Wis	27,668	0	0	0	0	27,668	0	0	0
108 Florida State University	27,649	358	12,602	7,438	1,515	3,935	1,098	705	0
109 Temple University	26,869	684	668	0	239	16,483	3,464	5,331	0
110 SUNY at Albany	25,998	0	1,996	3,302	479	15,445	2,430	2,346	0
Total, 1st 110 insts.	9,539,859	1,467,900	1,238,084	657,305	482,494	5,223,824	164,647	220,758	84,867
111 Univ of Rhode Island	25,480e	2,541i	635i	15,098i	157i	2,720i	2,371i	1,603i	355i
112 Univ of Nebraska-Lincoln	25,382	1,396	4,142	1,483	454	17,019	363	346	189
113 Univ Alabama Huntsville	24,432	9,255	9,925	2,230	2,209	337	0	44	432
114 Rensselaer Polytech Inst	24,313	18,149	3,430	456	1,411	372	69	180	266
115 U Tex Med Brnch Galveston	24,281	0	0	0	0	24,281	0	0	0
116 Univ of South Carolina	23,743	4,805	3,634	3,842	718	7,364	1,447	1,850	83
117 U of Houston	21,881	10,821	4,234	216	454	4,211	1,720	166	59
118 Brandeis University	21,800	0	2,619	0	783	11,592	1,167	5,639	0
119 University of Delaware	21,629	4,286	4,985	4,994	1,788	2,457	402	2,717	0
120 Univ of New Hampshire	21,591	1,951	828	13,077	545	3,782	159	1,269	0
Total, 1st 120 insts.	9,774,391	1,521,094	1,272,496	698,701	491,013	5,297,939	172,345	234,552	86,251
121 Rice University	21,356	2,497	7,234	1,920	7,243	2,090	284	88	0
122 University of Oregon	21,002	1,411	7,788	2,137	574	7,177	1,370	545	0
123 Univ of Cal Santa Cruz	20,237	0	7,664	5,551	1,042	4,131	513	1,336	0
124 US Naval Postgrad School	20,171	6,175	2,046	3,217	4,906	0	0	2,715	1,112
125 Clemson University	18,771	6,327	1,726	452	1,271	7,435	29	1,481	50
126 Florida A & M University	18,698	2,540	2,173	0	74	13,894	5	12	0
127 Kans St U - Ag & App Sci	18,583	2,517	3,337	149	304	11,617	102	255	302
128 SUNY Hlth Sci Ctr - Brkn	18,458	0	0	0	0	18,458	0	0	0
129 Loyola Univ - Chicago	18,071	0	345	0	1,023	16,439	13	251	0
130 Univ of South Florida	18,010	4,163	1,235	3,352	65	7,563	1,255	383	14
Total, 1st 130 insts.	9,967,748	1,546,724	1,308,044	715,479	507,515	5,386,743	175,916	241,596	87,729
131 The Medical Col of Penna	17,914	0	0	0	0	17,914	0	0	0
132 St Louis University	17,708	0	10	659	34	17,005	0	0	0
133 Lehigh University	17,426	12,919	3,217	308	288	272	184	258	0
134 Med Univ of S. Carolina	17,174	0	0	0	0	17,174	0	0	0
135 Univ of Cal Riverside	17,167	7	3,770	639	421	11,622	621	87	0
136 University of Idaho	16,601	4,304	795	1,028	110	10,186	26	150	0
137 Univ Serv Univ of Hlth Sc	16,176	0	0	0	0	16,176	0	0	0
138 University of Mississippi	16,097	2,634	4,149	0	72	8,555	225	462	0
139 Univ of North Dakota	15,895	9,090	172	1,086	0	4,662	8	383	496
140 San Diego State Univ	15,679	1,874	748	278	1,233	7,393	2,843	407	1,103
Total, 1st 140 insts.	10,135,585	1,577,552	1,318,905	719,477	509,853	5,497,704	179,621	243,345	89,328
141 Auburn University	15,415	6,366	1,218	143	161	6,604	85	57	781
142 Oklahoma State University	15,384	4,524	1,861	94	238	7,626	95	790	156
143 University of Notre Dame	15,058	2,917	9,812	16	419	1,564	187	131	12
144 Syracuse University	14,715	1,887	3,724	632	2,843	4,824	523	702	0
145 Univ of Nevada - Reno	14,085	3,580	659	2,432	31	7,152	0	147	84
146 Howard University	13,976	3,605	1,845	1	303	7,340	446	514	122
147 Montana State University	13,443	3,270	2,341	93	420	7,167	0	152	0
148 University of Wyoming	13,298	1,301	1,405	2,597	310	7,145	291	187	62
149 New York Medical College	13,081	0	0	0	0	13,081	0	0	0
150 Northeastern University	12,841	4,405	2,802	0	1,859	2,759	756	260	0
Total, 1st 150 insts.	10,276,881	1,609,187	1,344,372	725,485	516,037	5,562,946	182,004	246,285	90,345

See explanatory information and SOURCE at end of table.

Table B-40. Federally financed R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
151 Univ of Ark Fayetteville	12,421	2,105	1,397	241	171	7,980	0	159	368
152 CUNY City College	12,175	2,536	5,075	437	527	2,236	759	79	526
153 Desert Research Institute	11,508	0	0	8,219	45	1,238	0	2,006	0
154 Texas Tech University	11,121	2,325	1,533	159	238	5,486	10	1,370	0
155 Univ of P R-Med Sci Cmpus	10,679	0	0	0	0	10,679	0	0	0
156 Univ of Nevada, Las Vegas	10,006	2,205	396	5,587	715	454	0	534	115
157 Clark Atlanta University	9,985	1,107	3,115	107	1,602	3,928	0	126	0
158 SUNY Hlth Sci Ctr - Syrcs	9,985	0	0	0	0	9,985	0	0	0
159 Drexel University	9,869	6,445	1,713	606	250	800	0	55	0
160 Hahnemann University	9,797	0	0	0	0	9,797	0	0	0
Total, 1st 160 insts.	10,384,407	1,625,910	1,357,601	740,841	519,585	5,615,529	182,773	250,614	91,554
161 U of Neb Med Ctr at Omaha	9,740	0	0	0	0	9,740	0	0	0
162 U of Arkansas Med Sci Cam	9,642	0	0	0	0	9,642	0	0	0
163 Univ of Central Florida	9,151	1,501	2,418	606	522	198	406	5	3,497
164 Rush University	9,130	0	0	0	0	8,195	935	0	0
165 Univ of P R-Mayaguez	9,117	675i	108i	796i	131	7,480i	0i	0i	45i
166 Univ of Maine Orono	8,975	1,052	414	2,356	7	4,464	245	437	0
167 San Jose State University	8,948	2,453	1,064	2,881	132	175	2,150	93	0
168 Boston College	8,695	0	2,367	494	4,963	765	80	26	0
169 North Dakota State Univ	8,677	1,536	1,179	18	464	4,707	86	604	83
170 Wright State University	8,655	925	1,414	45	372	5,572	327	0	0
Total, 1st 170 insts.	10,475,137	1,634,052	1,366,585	748,037	526,058	5,666,465	187,002	251,779	95,179
171 George Mason University	8,439	3,278	954	1	3,093	471	311	331	0
172 Michigan Tech University	8,242	4,568	1,374	407	91	1,548	0	254	0
173 College of William & Mary	8,209	0	2,878	4,428	487	278	108	30	0
174 NC Ag & Tech State Univ	8,196	4,154	616	0	75	3,194	107	6	44
175 Brigham Young University	8,108	4,223	940	159	210	1,676	72	152	674
176 Univ of South Alabama	7,769	9	42	115	21	7,084	188	310	0
177 Medical Col of Georgia	7,747	0	0	0	0	7,747	0	0	0
178 N Mex Inst Mining & Tech	7,682	4,488	1,003	2,140	11	40	0	0	0
179 Univ of Texas at Dallas	7,676	199	5,465	541	47	1,160	203	61	0
180 Univ of Wis-Milwaukee	7,641	1,427	1,371	1,196	95	1,101	316	2,032	103
Total, 1st 180 insts.	10,554,844	1,656,398	1,381,208	757,024	530,188	5,690,764	188,307	254,955	96,000
181 Univ of Texas at El Paso	7,433	2,940	933	705	850	1,133	488	384	0
182 Southern Ill U-Carbondale	7,362	641	333	104	73	5,461	222	216	332
183 Mercer University	7,325	6,835	0	0	0	490	0	0	0
184 University of Louisville	7,267	479	984	2	63	5,546	43	150	0
185 University of Denver	7,236	487	2,774	8	12	688	2,565	602	0
186 Oregon Grad Inst Sci/Tech	7,138	2,223	1,991	1,273	1,851	0	0	0	0
187 Med Col of Ohio at Toledo	7,083	0	0	0	0	7,083	0	0	0
188 Eastern VA Medical School	6,966	0	0	0	0	6,966	0	0	0
189 The University of Alabama	6,877	3,197	2,362	348	29	680	157	63	42
190 Univ of Mass - Lowell	6,872	2,222	2,789	73	139	619	0	0	1,030
Total, 1st 190 insts.	10,626,423	1,675,422	1,393,374	759,537	533,004	5,719,430	191,882	256,370	97,404
191 Albany Medical College	6,740	0	0	0	0	6,740	0	0	0
192 Meharry Medical College	6,673	0	0	0	0	6,673	0	0	0
193 Colorado School of Mines	6,348	3,777	987	948	296	0	0	0	340
194 Old Dominion University	6,284	3,040	1,233	840	764	297	64	46	0
195 Morehouse School of Med	6,155	0i	0i	0i	0i	6,155i	0i	0i	0i
196 Virginia State University	6,031	0	1,708	579	0	3,744	0	0	0
197 Worcester Poly Institute	6,018	2,590	479	0	2,758	159	0	0	32
198 Chas R Drew U of Med & Sc	5,949	0	0	0	0	5,949	0	0	0
199 Kent State University	5,806	123	3,291	239	436	469	1,013	233	0
200 N J Inst of Technology	5,778	1,151	733	2,038	327	0	0	0	1,529
Total, 1st 200 insts.	10,688,205	1,686,103	1,401,805	764,181	537,587	5,749,616	192,959	256,649	99,305
Total, all other sampled insts.	322,786	55,000	58,964	21,759	17,413	128,557	18,012	19,499	3,582
Estimated total non-sampled insts.	76,041	13,564	15,674	13,244	5,159	14,598	10,670	2,282	851

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-41. Non-Federal R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Total, all institutions	7,792,672	1,327,595	581,399	449,616	242,505	4,335,045	114,466	538,779	203,268
1 Texas A & M University	192,472	59,814	7,411	16,823	2,508	91,138	876	10,082	3,820
2 University of Michigan	169,607	28,486	10,844	5,933	8,703	77,112	4,143	28,541	5,843
3 Univ of Wis-Madison	152,890	17,747	8,819	7,256	2,535	98,639	1,879	13,031	2,984
4 University of Minnesota	151,100	13,159	3,395	7,750	3,218	111,348	1,423	10,807	0
5 Univ of MD College Park	136,572	24,949	32,222	4,830	8,105	55,096	2,257	9,113	0
6 Univ of Cal Berkeley	135,591	32,468	8,879	1,883	1,934	70,380	3,059	13,668	3,320
7 Pennsylvania State Univ	126,428	42,630	7,746	9,144	1,664	46,665	2,839	6,554	9,186
8 University of Ill Urbana	122,884	24,276	7,872	20,818	10,418	31,664	2,581	8,217	17,038
9 Cornell University	118,981	16,019	7,848	2,052	4,661	77,834	2,002	8,546	19
10 Univ of Cal Davis	117,964	5,917	1,303	85	333	108,515	41	1,770	0
Total, 1st 10 insts.	1,424,489	265,467	96,339	76,574	44,079	768,391	21,100	110,329	42,210
11 University of Georgia	116,317	3,770	4,451	4,910	4,076	77,625	2,735	18,750	0
12 University of Arizona	116,087	10,699	31,191	13,613	2,029	50,672	1,079	6,374	430
13 Rutgers the St Univ of NJ	105,464	16,890	9,813	5,998	6,501	50,773	4,012	9,163	2,314
14 Ohio State University	105,351	27,369	4,182	2,259	6,195	56,476	308	7,347	1,215
15 Univ of Texas at Austin	103,931	36,968	19,219	16,840	7,666	7,100	568	10,411	5,159
16 Louisiana State Univ Sys	103,203	16,188	5,300	10,778	1,694	62,979	386	4,891	987
17 Stanford University	102,293	28,158	15,239	2,830	3,045	48,225	1,065	3,731	0
18 Univ of Cal San Francisco	93,501	0	0	0	0	93,501	0	0	0
19 N C State Univ at Raleigh	92,507	26,662	3,275	3,379	3,503	53,676	99	1,913	0
20 Univ of Cal Los Angeles	90,211	7,972	2,708	4,228	918	57,179	2,557	14,649	0
Total, 1st 20 insts.	2,453,354	440,143	191,717	141,409	79,706	1,326,597	33,909	187,558	52,315
21 Iowa St U of Sci & Tech	87,436	16,780	2,290	260	7,193	51,472	619	5,308	3,514
22 Mass Inst of Technology	86,481	47,944	16,479	2,365	4,214	4,756	4,018	4,776	1,929
23 Baylor Col of Medicine	82,264	0	0	0	0	82,264	0	0	0
24 VA Polytech Inst & St U	79,713	24,688	5,227	5,761	1,432	39,511	579	2,515	0
25 Georgia Institute of Tech	78,968	53,539	8,057	3,122	8,968	1,177	641	3,389	75
26 Harvard University	78,494	585	3,914	2,199	154	37,489	1,191	32,657	305
27 University of Connecticut	78,043	19,536	2,402	3,207	3,231	39,451	2,973	5,795	1,448
28 UT MD Anderson Cancer Ctr	77,629	0	1,919	0	1,398	74,312	0	0	0
29 Michigan State University	75,842	10,764	6,975	1,123	111	47,521	1,297	3,895	4,156
30 Northwestern University	72,734	8,237	2,937	123	1,643	33,070	322	1,281	25,121
Total, 1st 30 insts.	3,250,958	622,216	241,917	159,569	108,050	1,737,620	45,549	247,174	88,863
31 University of Florida	72,599	13,215	5,226	3,288	2,056	44,024	1,224	2,711	855
32 Purdue University	72,036	15,809	3,938	688	2,414	44,188	545	4,452	2
33 Univ of Missouri Columbia	69,195	8,035	3,696	1,358	49	50,184	689	4,740	444
34 Johns Hopkins Univ	68,846	4,808	2,625	2,574	241	41,787	174	3,979	12,858
35 Univ of Nebraska-Lincoln	66,045	10,755	3,164	5,458	724	43,574	362	1,954	54
36 Duke University	62,936	1,822	1,729	1,196	550	53,977	129	3,533	0
37 Univ of Pennsylvania	62,850	4,574	2,915	99	1,015	43,286	59	10,342	560
38 University of Oklahoma	62,413	10,009	4,441	6,385	2,394	28,849	2,452	5,758	2,125
39 Univ of Cal San Diego	62,271	2,213	5,543	22,436	4,103	25,422	746	1,808	0
40 Univ of MD Balt Prof Sch	59,742	0	0	0	0	59,742	0	0	0
Total, 1st 40 insts.	3,909,891	693,256	275,194	203,051	121,596	2,172,653	51,929	286,451	105,761
41 Univ. Of Tennessee System	59,193	11,844	4,458	3,398	2,460	33,492	129	2,673	739
42 Clemson University	58,808	17,650	3,031	298	2,342	29,805	210	4,094	1,378
43 Oklahoma State University	55,854	9,811	3,973	1,324	401	30,987	312	5,844	3,202
44 University of Washington	55,674	8,291	3,413	2,879	572	35,094	437	3,551	1,437
45 Yale University	54,224	2,624	2,851	577	642	41,824	2,806	2,900	0
46 Univ of Ill Chicago	53,783	6,477	2,353	995	1,246	38,335	409	3,213	755
47 Univ of Southern Cal	53,027	6,305	630	2,797	2,891	35,042	1,939	3,181	242
48 University of Kentucky	52,416	10,413	317	134	126	38,630	57	349	2,190
49 Auburn University	51,358	11,790	3,190	90	479	34,385	49	358	1,017
50 SUNY at Buffalo	50,800	20,897	2,923	410	1,177	19,436	2,855	2,986	116
Total, 1st 50 insts.	4,455,028	799,358	302,333	215,953	133,932	2,509,883	61,132	315,600	116,837

See explanatory information and SOURCE at end of table.

Table B-41. Non-Federal R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
51 Univ of South Florida	50,703	8,295	774	4,515	46	34,637	1,987	446	3
52 Oregon State University	47,834	4,758	1,387	3,939	940	34,511	6	1,810	483
53 Univ of NC at Chapel Hill	47,775	0	1,623	4,239	3,833	32,119	311	5,650	0
54 Indiana University	47,694	775	9,342	860	778	27,563	924	3,748	3,704
55 University of Iowa	47,058	6,812	4,437	266	1,199	31,031	487	2,750	76
56 Washington State Univ	46,867	3,891	836	431	190	34,284	110	6,531	594
57 Washington University	46,476	1,509	1,151	656	2,078	40,794	71	217	0
58 Univ. of Colorado	46,372	8,554	5,988	6,524	1,094	20,570	2,251	1,391	0
59 Wayne State University	45,558	4,049	7,881	0	733	27,927	535	2,189	2,244
60 Univ of Med & Dent of N J	45,413	0	0	0	0	45,413	0	0	0
Total, 1st 60 insts.	4,926,778	838,001	335,752	237,383	144,823	2,838,732	67,814	340,332	123,941
61 University of Kansas	43,012	2,851	4,322	6,964	82	23,059	667	406	4,661
62 Unif Serv Univ of Hlth Sc	42,995	0	0	0	0	42,995	0	0	0
63 University of Virginia	41,952	7,313	2,866	1,252	1,122	23,884	461	4,033	1,021
64 UT SW Medical Ctr-Dallas	40,764	0	0	0	0	40,764	0	0	0
65 Carnegie-Mellon Univ	40,723	12,351	1,451	2,076	12,390	7,887	1,357	2,308	903
66 Univ of Cal Riverside	40,369	125	408	705	341	37,866	153	771	0
67 University of New Mexico	40,038	9,485	1,864	604	596	17,665	365	6,548	2,911
68 Kans St U - Ag & App Sci	39,140	5,880	494	103	678	29,924	219	1,140	702
69 Tulane University	38,886	4,628	1,395	192	477	27,266	470	4,202	256
70 Princeton University	38,236	10,300	6,695	2,624	2,217	5,640	2,616	8,144	0
Total, 1st 70 insts.	5,332,893	890,934	355,247	251,903	162,726	3,095,682	74,122	367,884	134,395
71 Rockefeller University	37,270	0	2,700	0	920	33,650	0	0	0
72 Arizona State University	36,198	15,576	6,895	427	1,489	2,525	891	5,509	2,886
73 University of Pittsburgh	36,173	4,115	2,140	21	342	26,350	188	2,999	18
74 Mississippi State Univ	36,008	4,617	743	441	0	24,263	2	2,186	3,756
75 Univ of Alaska Fairbanks	35,815	2,703	5,438	13,032	69	11,953	0	2,620	0
76 Univ Alabama Birmingham	35,452	3,595	219	387	86	30,818	260	87	0
77 New York University	35,318	0	692	172	1,408	26,163	570	5,980	333
78 SUNY at Stony Brook	35,298	1,077	6,680	4,602	1,750	18,791	317	1,265	816
79 Case Western Reserve Univ	35,004	9,189	1,461	198	3	19,953	849	3,351	0
80 Utah State University	34,872	6,590	1,841	6,173	188	13,276	239	1,154	5,411
Total, 1st 80 insts.	5,690,301	938,396	384,056	277,356	168,981	3,303,424	77,438	393,035	147,615
81 Univ of Cal Irvine	33,944	3,095	1,336	130	761	26,550	5	1,981	86
82 U Tex Med Brnch Galveston	33,391	0	0	0	0	33,391	0	0	0
83 Univ of Hawaii-Manoa	32,574	772	5,830	2,933	146	17,166	148	3,030	2,549
84 Univ of Ark Fayetteville	32,347	5,876	2,642	870	731	18,832	559	2,317	520
85 Emory University	31,504	0	1,023	3	25	26,420	277	3,756	0
86 Univ of South Carolina	30,617	5,356	2,756	7,993	1,069	8,239	578	3,803	823
87 Univ of Mass - Amherst	29,582	4,876	6,905	4,067	2,958	9,266	536	418	552
88 University of Rochester	29,579	3,773	1,403	93	164	21,104	2,833	74	135
89 University of Utah	29,100	6,186	2,204	1,637	1,430	17,067	236	340	0
90 Colorado State University	28,366	5,680	1,434	1,854	481	15,525	503	2,889	0
Total, 1st 90 insts.	6,001,305	974,010	409,589	298,936	176,746	3,496,986	83,115	411,643	152,280
91 University of Idaho	27,539	3,984	1,209	1,560	36	19,239	20	1,491	0
92 University of Delaware	27,341	7,912	2,921	2,752	529	9,138	107	3,982	0
93 Temple University	27,052	512	1,170	13	422	17,661	2,256	4,994	24
94 University of Cincinnati	26,801	7,904	1,754	72	233	15,527	129	527	655
95 Rensselaer Polytech Inst	26,456	19,749	3,732	495	1,535	405	76	174	290
96 North Dakota State Univ	25,789	2,789	1,706	22	384	19,336	176	1,258	116
97 Texas Tech University	25,748	6,481	2,718	921	701	12,663	177	1,410	677
98 West Virginia University	24,742	3,618	833	1,908	3,321	12,984	28	1,725	325
99 Columbia Univ Main Div	24,739	3,653	612	412	882	18,209	0	971	0
100 CUNY Mt Sinai Sch of Med	24,708	0	0	0	0	24,708	0	0	0
Total, 1st 100 insts.	6,262,220	1,030,612	426,244	305,091	184,789	3,648,858	86,084	428,175	154,367

See explanatory information and SOURCE at end of table.

Table B-41. Non-Federal R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
101 U Tex Hlth Sci Ctr S Anto	24,131	0	0	0	0	24,131	0	0	0
102 Univ of Nevada - Reno	23,461	1,295	525	2,267	0	9,176	115	1,843	8,440
103 Virginia Commonwlth Univ	23,298	167	721	0	52	21,041	132	1,185	0
104 U of Houston	23,076	14,484	4,057	681	714	1,767	633	555	185
105 Florida State University	22,529	321	10,517	2,850	707	3,535	1,053	3,546	0
106 University of Miami	22,309	836	84	2,212	24	18,123	219	787	24
107 Georgetown University	22,278	0	1,253	148	277	19,543	14	1,020	23
108 U of Neb Med Ctr at Omaha	21,824	0	0	0	0	21,824	0	0	0
109 New Mexico State Univ	21,028	6,668	475	1,261	478	11,540	13	526	67
110 Montana State University	20,976	2,453	1,401	364	231	15,467	0	1,060	0
Total, 1st 110 insts.	6,487,130	1,056,836	445,277	314,874	187,272	3,793,005	88,263	438,497	163,106
111 University of Chicago	20,941	0	2,872	955	227	13,953	534	2,400	0
112 Southern Ill U-Carbondale	20,712	4,358	1,496	345	1,831	7,247	177	1,231	4,027
113 U Tex Hlth Sci Ctr Houstn	20,019	0	0	0	0	19,960	0	59	0
114 Yeshiva University	19,044	0	0	0	0	19,044	0	0	0
115 SUNY Hlth Sci Ctr - Brkln	18,613	0	0	0	0	18,613	0	0	0
116 Univ of Central Florida	18,478	3,384	5,491	6,501	194	492	173	321	1,922
117 Univ of Mass - Worcester	17,929	0	0	0	0	17,929	0	0	0
118 Brown University	17,729	2,403	3,001	923	2,888	6,298	484	1,732	0
119 N Mex Inst Mining & Tech	17,526	12,309	1,005	3,751	319	142	0	0	0
120 Syracuse University	17,430	3,658	1,654	681	7,503	538	263	3,098	35
Total, 1st 120 insts.	6,675,551	1,082,948	460,796	328,030	200,234	3,897,221	89,894	447,338	169,090
121 Vanderbilt University	17,190	2,116	968	24	49	12,341	457	1,235	0
122 Rush University	17,054	0	0	0	0	15,805	1,249	0	0
123 Boston University	17,024	1,431	1,760	82	26	11,072	84	1,151	1,418
124 University of Wyoming	16,883	2,531	591	3,145	979	6,842	0	125	2,670
125 U of VT & State Agr Coll	16,785	471	336	167	78	14,766	289e	54	624
126 Univ of Cal Santa Cruz	16,176	0	8,545	4,305	268	2,342	144	572	0
127 Univ of P R-Mayaguez	16,121	548i	0i	171i	8i	15,320i	21i	0i	53i
128 SUNY Col of Env Sci & For	16,029	5,811	854	1,714	118	7,385	0	147	0
129 Medical College of Wis	15,911	0	0	0	0	15,911	0	0	0
130 Oregon Hlth Sciences Univ	15,765	0i	0i	0i	0i	15,474i	291i	0i	0i
Total, 1st 130 insts.	6,840,489	1,095,856	473,850	337,638	201,760	4,014,479	92,429	450,622	173,855
131 The University of Alabama	15,696	4,510	2,964	1,171	822	2,031	634	3,441	123
132 Univ of Rhode Island	15,362e	2,396i	371i	3,341i	88i	7,483i	427i	786i	470i
133 N J Inst of Technology	15,348	4,064	880	6,358	291	0	0	15	3,740
134 San Diego State Univ	15,004	1,745	803	214	958	6,021	565	934	3,964
135 Dartmouth College	14,877	1,364	474	936	104	11,444	93	118	344
136 Med Univ of S. Carolina	14,726	0	0	0	0	14,726	0	0	0
137 Lehigh University	14,396	10,702	2,140	198	569	529	86	172	0
138 Univ of Maine Orono	14,238	2,316	252	2,092	63	7,979	38	1,498	0
139 U of MD Center For EES	14,236	0	0	14,236	0	0	0	0	0
140 Medical Col of Georgia	13,679	0	0	0	0	13,679	0	0	0
Total, 1st 140 insts.	6,988,051	1,122,953	481,534	366,184	204,655	4,078,371	94,272	457,586	182,496
141 Brandeis University	13,429	0	729	0	295	4,585	286	7,534	0
142 Drexel University	13,315	7,533	1,588	242	1,296	1,130	327	1,199	0
143 Univ of Cal Santa Barbara	13,230	4,004	1,880	3,198	1,160	564	714	1,710	0
144 California Inst of Tech	12,535	2,420	4,718	960	357	3,702	0	138	240
145 Thomas Jefferson Univ	12,468	0	0	0	0	12,468	0	0	0
146 Wake Forest University	12,414	0	227	0	25	12,015	0	0	147
147 Univ of New Hampshire	12,153	2,266	268	5,262	193	3,082	6	579	497
148 Loyola Univ - Chicago	12,028	0	127	0	64	11,244	230	360	3
149 George Washington Univ	11,177	1,269	229	2	253	4,513	151	4,757	3
150 Univ of Wis-Milwaukee	10,926	1,816	1,778	1,879	312	1,193	173	2,857	918
Total, 1st 150 insts.	7,111,726	1,142,261	493,078	377,727	208,610	4,132,867	96,159	476,720	184,304

See explanatory information and SOURCE at end of table.

Table B-41. Non-Federal R&D expenditures at universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
151 Univ of Missouri Rolla	10,800	8,266	1,307	148	276	82	3	5	713
152 College of William & Mary	10,681	0	1,007	8,590	238	620	84	142	0
153 Univ of Tex at Arlington	10,600	6,714	2,113	374	766	310	130	128	65
154 University of Akron	10,487	4,139	5,433	47	280	300	151	137	0
155 University of Louisville	10,133	846	218	397	11	7,422	7	1,232	0
156 Ohio University	9,955	5,159	486	71	33	3,976	75	112	43
157 Michigan Tech University	9,937	7,259	350	173	83	1,267	0	665	140
158 SUNY at Albany	9,868	0	1,026	2,953	337	3,928	693	931	0
159 Univ of Southwestern LA	9,808	1,811	432	102	3,920	2,072	157	646	668
160 San Jose State University	9,378	6,219	474	2,419	40	139	15	72	0
Total, 1st 160 insts.	7,213,373	1,182,674	505,924	393,001	214,594	4,152,983	97,474	480,790	185,933
161 University of Oregon	9,240	502	3,743	743	410	2,276	804	762	0
162 Stevens Institute of Tech	9,145	8,854	178	0	52	0	0	61	0
163 Desert Research Institute	9,071	0	0	7,178	5	1,314	0	574	0
164 Univ of North Texas	8,769	254	2,125	1,337	1,006	1,600	335	675	1,437
165 Wright State University	8,746	1,716	1,348	240	425	3,774	163	50	1,030
166 Woods Hole Ocngrphic Inst	8,616	685	0	7,931	0	0	0	0	0
167 Memphis State University	8,583	949	190	2,011	51	1,651	2,105	1,626	0
168 Tufts University	8,521	365	116	313	0	6,498	70	1,159	0
169 Tenn Technological Univ	8,338	7,452	225	15	37	583	0	26	0
170 SUNY at Binghamton	8,232	1,704	1,285	578	457	905	1,497	1,806	0
Total, 1st 170 insts.	7,300,634	1,205,155	515,134	413,347	217,037	4,171,584	102,448	487,529	188,400
171 Rice University	8,068	2,089	1,957	958	2,076	909	88	11	0
172 Univ of Mass - Lowell	8,008	2,383	996	32	343	2,097	5	0	2,152
173 South Dakota State Univ	7,941	631	210	411	0	6,291	0	398	0
174 The Medical Col of Penna	7,921	0	0	0	0	7,921	0	0	0
175 University of Notre Dame	7,621	3,724	1,894	155	45	1,581	65	15	142
176 Univ Alabama Huntsville	7,585	3,951	1,519	414	1,362	189	0	60	90
177 Hahnemann University	7,535	0	0	0	0	7,535	0	0	0
178 University of Mississippi	7,264	417	885	0	22	5,695	15	230	0
179 Colorado School of Mines	6,435	4,543	482	862	440	0	0	108	0
180 Brigham Young University	6,383	2,689	1,615	54	198	1,096	82	289	340
Total, 1st 180 insts.	7,375,375	1,225,562	524,692	416,233	221,523	4,204,898	102,703	488,640	191,124
181 U of Arkansas Med Sci Cam	6,247	0	0	0	0	6,247	0	0	0
182 Inst Paper Sci and Tech	6,157	4,246	970	0	257	684	0	0	0
183 Georgia State University	6,005	0	855	141	466	1,160	1,716	1,193	474
184 University of Dayton	5,982	5,342	251	78	23	139	31	19	99
185 Univ of Mass - Boston	5,955	0	90	676	5	490	84	4,610	0
186 Cleveland State Univ	5,897	1,386	333	1	86	184	18	3,891	0
187 Kent State University	5,849	5	5,029	9	111	322	293	65	15
188 Univ of Missouri Kan City	5,470	0	271	27	921	3,358	0	522	371
189 Northern Illinois Univ	5,324	475	1,189	289	187	1,177	179	1,828	0
190 Univ of Texas at Dallas	5,319	806	1,688	862	265	728	569	401	0
Total, 1st 190 insts.	7,433,580	1,237,822	535,368	418,316	223,844	4,219,387	105,591	501,169	192,083
191 Clarkson University	5,289	3,700	1,341	0	49	160	4	0	35
192 Oregon Grad Inst Sci/Tech	5,194	1,306	1,716	1,414	758	0	0	0	0
193 University of Montana	5,153	0	211	178	55	2,682	9	858	1,160
194 Western Michigan Univ	4,763	1,260	57	1,395	237	313	450	1,003	48
195 University of Tulsa	4,592	3,487	196	62	293	506	29	17	0
196 Old Dominion University	4,575	758	94	2,584	220	718	26	175	0
197 Creighton University	4,569	0	29	0	0	4,540	0	0	0
198 Univ of South Alabama	4,506	132	143	221	9	3,705	82	201	15
199 CUNY City College	4,279	2,984	292	43	2	770	167	21	0
200 Eastern VA Medical School	4,272	0	0	0	0	4,272	0	0	0
Total, 1st 200 insts.	7,480,774	1,251,449	539,447	424,213	225,467	4,237,055	106,358	503,444	193,341
Total, all other sampled insts.	216,083	45,913	29,804	12,255	11,654	78,812	6,158	25,132	6,355
Estimated total non-sampled insts.	95,815	30,233	12,148	13,148	5,384	19,178	1,950	10,203	3,572

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-42. R&D expenditures at public universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
Total, all institutions	12,634,376	2,060,942	1,293,160	971,266	427,860	6,812,758	233,966	602,920	231,504
1 University of Michigan	393,059	64,901	23,872	20,533	24,477	195,922	11,439	44,451	7,464
2 Univ of Wis-Madison	352,706	46,312	35,224	21,726	8,426	202,187	10,389	25,441	3,001
3 University of Minnesota	317,026	26,053	16,190	11,830	18,391	224,221	6,341	14,000	0
4 University of Washington	313,514	18,352	17,623	59,379	9,824	192,469	6,315	8,115	1,437
5 Texas A & M University	305,390	77,462	16,905	65,732	4,740	122,997	1,501	12,224	3,829
6 Univ of Cal San Francisco	295,784	0	0	0	0	295,784	0	0	0
7 Univ of Cal Berkeley	284,545	62,178	61,408	5,259	6,943	118,846	7,088	19,053	3,770
8 Univ of Cal San Diego	282,114	6,173	44,711	73,193	10,[illegible]	141,979	2,914	2,345	0
9 Pennsylvania State Univ	278,305	119,878	18,737	17,918	4,132	90,125	6,302	9,934	11,279
10 Univ of Cal Los Angeles	270,954	28,471	25,369	13,151	7,716	170,979	8,225	17,043	0
Total, 1st 10 insts.	3,093,397	449,780	260,039	288,721	95,448	1,755,509	60,514	152,606	30,780
11 University of Ill Urbana	251,970	53,044	39,935	26,970	21,263	58,097	6,289	11,241	35,131
12 Univ of Texas at Austin	228,545	85,430	58,507	28,888	14,354	19,472	2,765	12,890	6,239
13 University of Arizona	221,999	19,539	59,235	20,308	5,258	105,187	1,978	8,492	2,002
14 Univ of MD College Park	219,041	47,806	66,810	10,558	12,796	62,624	3,494	14,953	0
15 Univ of Cal Davis	209,282	12,364	8,670	943	771	183,504	677	2,353	0
16 Ohio State University	203,291	43,764	16,772	6,728	9,336	106,349	1,004	16,422	2,916
17 Georgia Institute of Tech	180,263	122,215	18,392	7,128	20,471	2,687	1,463	7,736	171
18 Univ. of Colorado	176,266	22,714	24,521	28,725	4,108	84,498	6,752	4,948	0
19 University of Georgia	165,279	4,375	7,501	6,252	6,043	116,753	4,237	20,118	0
20 Rutgers the St Univ of NJ	162,089	24,726	20,500	8,507	13,601	69,760	7,029	15,609	2,357
Total, 1st 20 insts.	5,111,422	885,757	580,882	433,728	203,449	2,564,440	96,202	267,368	79,596
21 Univ of NC at Chapel Hill	161,549	0	7,992	7,989	9,186	120,223	2,235	13,924	0
22 University of Pittsburgh	157,250	8,247	11,932	385	1,828	127,935	2,280	4,014	629
23 Louisiana State Univ Sys	151,844	22,443	10,795	17,877	2,198	90,969	993	5,515	1,054
24 N C State Univ at Raleigh	143,008	44,797	6,951	6,503	5,332	76,021	360	3,044	0
25 Michigan State University	142,308	16,382	23,511	1,967	538	81,787	3,293	7,420	7,410
26 Purdue University	140,260	37,949	15,814	2,155	6,538	69,657	1,908	6,065	174
27 University of Florida	140,189	24,476	10,860	5,493	4,880	87,227	2,152	3,636	1,465
28 University of Iowa	135,418	12,214	20,949	421	1,805	94,968	1,051	3,851	159
29 Iowa St U of Sci & Tech	132,580	31,512	4,623	446	10,859	71,224	911	9,046	3,959
30 Univ. Of Tennessee System	131,240	27,569	11,957	11,993	10,026	64,084	423	4,233	955
Total, 1st 30 insts.	6,547,068	1,111,346	706,266	488,957	256,639	3,448,535	111,808	328,116	95,401
31 VA Polytech Inst & St U	130,994	49,830	9,403	11,891	2,721	51,855	1,463	3,831	0
32 SUNY at Buffalo	128,428	28,827	7,503	689	6,723	76,580	4,182	3,808	116
33 University of Connecticut	124,010	23,024	3,242	7,300	3,691	73,136	5,754	6,344	1,519
34 Univ Alabama Birmingham	117,844	4,039	561	450	251	111,432	887	224	0
35 Indiana University	117,565	998	29,730	1,666	2,110	69,349	3,907	4,588	5,217
36 UT MD Anderson Cancer Ctr	112,121	0	3,772	0	2,476	105,873	0	0	0
37 University of Virginia	110,103	18,988	12,510	6,192	4,192	60,441	2,655	4,052	1,073
38 University of Utah	108,486	14,501	11,180	4,229	7,903	69,005	1,172	496	0
39 Univ of MD Balt Prof Sch	107,830	0	0	0	0	107,830	0	0	0
40 Oregon State University	107,573	9,169	4,762	24,122	2,404	62,669	141	2,868	1,438
Total, 1st 40 insts.	7,712,022	1,260,722	788,929	545,496	289,110	4,236,705	131,969	354,327	104,764
41 Univ of Ill Chicago	102,267	8,795	7,605	1,179	2,969	75,258	1,757	3,879	825
42 UT SW Medical Ctr-Dallas	102,263	0	0	0	0	102,263	0	0	0
43 SUNY at Stony Brook	96,906	3,355	20,580	11,799	5,477	52,657	2,069	2,130	839
44 Univ of Missouri Columbia	97,242	10,702	5,101	1,687	374	71,032	1,337	6,538	471
45 University of Kentucky	92,244	16,601	2,204	203	961	65,787	264	1,588	4,636
46 University of Oklahoma	92,146	13,866	6,807	9,192	4,997	40,591	2,958	11,593	2,142
47 Univ of Nebraska-Lincoln	91,427	12,141	7,306	6,941	1,178	60,593	725	2,300	243
48 Utah State University	89,776	38,155	6,767	10,643	529	23,233	1,763	1,479	7,207
49 Univ of Cal Irvine	89,275	6,101	14,095	130	4,185	59,902	5	4,286	571
50 Colorado State University	88,132	15,625	6,241	10,882	1,337	44,617	2,868	6,562	0
Total, 1st 50 insts.	8,655,700	1,386,063	865,635	598,152	311,117	4,832,638	145,715	394,682	121,698

See explanatory information and SOURCE at end of table.

Table B-42. R&D expenditures at public universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
51 Washington State Univ	85,080	7,623	3,577	667	606	56,626	257	8,892	6,832
52 Univ of Med & Dent of N J	84,505	0	0	0	0	84,505	0	0	0
53 New Mexico State Univ	83,900	46,532	2,772	8,631	3,161	20,452	53	1,501	798
54 University of Cincinnati	83,176	19,056	4,991	144	517	55,123	207	640	2,498
55 Wayne State University	81,127	5,758	10,917	0	1,059	56,634	1,876	2,603	2,280
56 Univ of Hawaii-Manoa	80,258	1,715	22,477	17,406	924	28,153	295	3,473	5,815
57 University of New Mexico	80,071	26,979	4,069	1,499	1,036	33,502	1,537	7,829	3,620
58 Clemson University	77,579	23,977	4,757	750	3,613	37,240	239	5,575	1,428
59 University of Kansas	75,004	5,027	7,354	7,812	280	42,582	1,437	406	10,106
60 Oklahoma State University	71,238	14,335	5,834	1,418	639	38,613	407	6,634	3,358
Total, 1st 60 insts.	9,457,638	1,537,065	932,383	636,479	322,952	5,286,068	152,023	432,235	158,433
61 Arizona State University	69,346	21,491	15,546	8,830	2,628	7,291	2,947	7,702	2,911
62 Virginia Commonwith Univ	69,189	167	2,244	0	303	64,331	550	1,594	0
63 Univ of South Florida	68,713	12,458	2,009	7,867	111	42,200	3,242	809	17
64 Univ of Alaska Fairbanks	67,881	3,347	13,380	31,109	88	16,880	0	3,077	0
65 Auburn University	66,773	18,156	4,408	233	640	40,989	134	415	1,798
66 Univ of Cal Santa Barbara	66,007	23,647	15,649	10,488	4,505	2,736	2,861	6,121	0
67 Mississippi State Univ	65,754	18,116	1,852	1,043	175	36,247	2	3,414	4,905
68 U Tex Hlth Sci Ctr S Anto	65,179	0	0	0	0	65,179	0	0	0
69 Univ of Mass - Amherst	62,990	10,479	16,122	6,158	9,517	16,490	2,916	467	841
70 Unif Serv Univ of Hlth Sc	59,171	0	0	0	0	59,171	0	0	0
Total, 1st 70 insts.	10,118,641	1,644,926	1,003,593	702,207	340,919	5,637,582	164,675	455,834	168,905
71 Kans St U - Ag & App Sci	57,723	8,397	3,831	252	982	41,541	321	1,395	1,004
72 U Tex Med Brnch Galveston	57,672	0	0	0	0	57,672	0	0	0
73 Univ of Cal Riverside	57,536	132	4,178	1,344	782	49,488	774	858	0
74 U Tex Hlth Sci Ctr Houstn	56,497	0	0	0	0	55,900	0	597	0
75 Univ of South Carolina	54,360	10,161	6,390	11,835	1,787	15,603	2,025	5,653	906
76 Temple University	53 921	1,196	1,838	13	661	34,144	5,720	10,325	24
77 Univ of Mass - Worcester	53,342	0	0	0	0	53,342	0	0	0
78 West Virginia University	52,482	9,812	2,490	5,386	6,240	25,486	99	2,202	767
79 Florida State University	50,178	677	23,119	10,268	2,222	7,470	2,151	4,251	0
80 U of VT & State Agr Coll	49,542	936	924	239	235	45,533	879	54	742
Total, 1st 80 insts.	10,661,894	1,676,237	1,046,363	731,564	353,808	6,023,761	176,644	481,169	172,348
81 Oregon Hlth Sciences Univ	49,313	0	0	0	0	47,684	1,629	0	0
82 University of Delaware	48,970	12,198	7,906	7,746	2,317	11,595	509	6,699	0
83 U of Houston	44,957	25,305	8,291	897	1,168	5,978	2,353	721	244
84 Univ of Ark Fayetteville	44,768	7,981	4,039	1,111	902	26,812	559	2,476	888
85 University of Idaho	44,140	8,288	2,004	2,588	146	29,427	46	1,641	0
86 Univ of Rhode Island	40,842e	4,937	1,006	18,439	245	10,203	2,798	2,389	825
87 Univ of Nevada - Reno	37,546	4,875	1,184	4,699	31	16,328	115	1,790	8,524
88 SUNY Hlth Sci Ctr - Brkln	37,071	0	0	0	0	37,071	0	0	0
89 Texas Tech University	36,869	8,806	4,251	1,080	939	18,149	187	2,780	677
90 Univ of Cal Santa Cruz	36,413	0	16,209	9,856	1,310	6,473	657	1,908	0
Total, 1st 90 insts.	11,082,783	1,748,627	1,091,253	777,980	360,866	6,233,481	185,497	501,573	183,506
91 SUNY at Albany	35,856	0	3,012	6,255	816	19,373	3,123	3,277	0
92 North Dakota State Univ	34,466	4,325	2,885	40	848	24,045	262	1,882	199
93 Montana State University	34,419	5,723	3,742	457	651	22,634	0	1,212	0
94 Univ of New Hampshire	33,744	4,217	1,096	18,339	736	6,844	165	1,848	497
95 Univ Alabama Huntsville	32,017	13,206	11,444	2,644	3,571	526	0	104	522
96 Med Univ of S. Carolina	31,900	0	0	0	0	31,900	0	0	0
97 U of Neb Med Ctr at Omaha	31,564	0	0	0	0	31,564	0	0	0
98 San Diego State Univ	30,683	3,619	1,351	492	2,191	13,414	3,208	1,341	5,067
99 University of Oregon	30,242	1,913	11,531	2,880	984	9,453	2,174	1,307	0
100 University of Wyoming	30,181	3,832	1,998	5,742	1,289	13,987	291	312	2,732
Total, 1st 100 insts.	11,407,855	1,785,462	1,128,310	814,829	371,954	6,407,221	194,720	512,836	192,523

See explanatory information and SOURCE at end of table.

Table B-42. R&D expenditures at public universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
101 Southern Ill U-Carbondale	28,094	4,999	1,829	449	1,904	12,708	399	1,447	4,359
102 Univ of Central Florida	27,629	4,885	7,909	7,107	716	688	579	326	5,419
103 Univ of P R-Mayaguez	25,238	1,223i	108i	967i	21i	22,800i	21i	0i	98i
104 N Mex Inst Mining & Tech	25,208	16,797	2,008	5,891	330	182	0	0	0
105 University of Mississippi	23,361	3,051	5,034	0	94	14,250	240	692	0
106 Univ of Maine Orono	23,213	3,368	666	4,448	70	12,443	283	1,935	0
107 The University of Alabama	22,573	7,707	5,326	1,519	850	2,711	791	3,504	165
108 Florida A & M University	22,230	3,223	2,203	0	89	16,698	5	12	0
109 Medical Col of Georgia	21,426	0	0	0	0	21,426	0	0	0
110 N J Inst of Technology	21,126	5,215	1,613	8,396	618	0	0	15	5,269
Total, 1st 110 insts.	11,647,953	1,835,930	1,155,006	843,606	376,646	6,511,127	197,038	520,767	207,833
111 Desert Research Institute	20,579	0	0	15,397	50	2,552	0	2,580	0
112 US Naval Postgrad School	20,412	6,232	2,174	3,231	4,920	0	0	2,743	1,112
113 College of William & Mary	18,890	0	3,885	13,018	725	898	192	172	0
114 Univ of Wis-Milwaukee	18,567	3,243	3,149	3,075	407	2,294	489	4,889	1,021
115 U of MD Center For EES	18,557	0	0	18,557	0	0	0	0	0
116 SUNY Col of Env Sci & For	18,456	6,003	1,092	1,846	152	9,189	0	174	0
117 San Jose State University	18,326	8,672	1,538	5,300	172	314	2,165	165	0
118 Univ of North Dakota	18,265	10,011	218	1,577	0	5,006	7	794	652
119 Michigan Tech University	18,179	11,827	1,724	580	174	2,815	0	919	140
120 Wright State University	17,401	2,641	2,762	285	797	9,346	490	50	1,030
Total, 1st 120 insts.	11,835,585	1,884,559	1,171,548	906,472	384,043	6,543,541	200,381	533,253	211,788
121 University of Louisville	17,400	1,325	1,202	399	74	12,968	50	1,382	0
122 CUNY City College	16,454	5,520	5,367	480	529	3,006	926	100	526
123 U of Arkansas Med Sci Cam	15,889	0	0	0	0	15,889	0	0	0
124 Univ of Missouri Rolla	15,619	11,465	2,803	248	343	187	3	57	713
125 Univ of Mass - Lowell	14,880	4,605	3,785	105	482	2,716	5	0	3,182
126 Ohio University	14,811	8,294	1,323	129	63	4,767	75	117	43
127 University of Akron	14,437	5,414	7,289	118	726	300	151	439	0
128 SUNY Hlth Sci Ctr - Syrcs	13,896	0	0	0	0	13,896	0	0	0
129 Univ of Tex at Arlington	13,896	8,285	3,094	514	919	640	174	150	120
130 Univ of P R-Med Sci Cmpus	13,685	0	0	0	0	13,685	0	0	0
Total, 1st 130 insts.	11,966,552	1,929,467	1,196,211	908,465	387,179	6,611,595	201,765	535,498	216,372
131 Univ of Nevada, Las Vegas	13,300	2,525	691	6,243	1,439	917	13	1,247	225
132 Univ of Texas at Dallas	12,995	1,005	7,153	1,403	312	1,888	772	462	0
133 SUNY at Binghamton	12,843	2,098	1,932	977	648	1,803	2,715	2,670	0
134 Colorado School of Mines	12,783	8,320	1,469	1,810	736	0	0	108	340
135 South Dakota State Univ	12,692	870	429	902	0	9,900	0	591	0
136 Univ of South Alabama	12,277	141	185	336	30	10,789	270	511	15
137 Memphis State University	12,169	1,559	355	2,741	230	2,434	3,153	1,697	0
138 George Mason University	11,930	5,119	1,036	8	3,263	659	525	1,300	0
139 NC Ag & Tech State Univ	11,914	6,720	716	0	129	4,000	107	55	187
140 Kent State University	11,655	128	8,320	248	549	791	1,306	298	15
Total, 1st 140 insts.	12,111,110	1,957,952	1,218,497	923,133	394,535	6,644,776	210,626	544,437	217,154
141 Cleveland State Univ	10,939	3,957	1,083	1	99	1,135	99	4,565	0
142 Med Col of Ohio at Toledo	10,905	0	0	0	0	10,905	0	0	0
143 Old Dominion University	10,859	3,798	1,327	3,424	984	1,015	90	221	0
144 Univ of Southwestern LA	10,815	1,821	527	112	4,360	2,511	158	658	668
145 Northern Illinois Univ	10,708	679	2,003	527	487	3,530	438	3,044	0
146 Univ of North Texas	10,701	370	2,516	1,440	1,312	2,475	354	797	1,437
147 University of Montana	10,177	0	372	242	486	6,404	9	1,491	1,173
148 Univ of Texas at El Paso	10,147	3,947	1,057	941	982	1,254	552	1,414	0
149 Georgia State University	10,026	0	2,381	290	534	2,436	2,521	1,390	474
150 Univ of Missouri Kan City	9,869	0	503	50	921	7,483	0	561	371
Total, 1st 150 insts.	12,216,276	1,972,524	1,230,266	930,160	404,700	6,683,924	214,847	558,578	221,277
Total, all other sampled insts.	282,835	46,698	46,332	19,292	14,834	105,994	9,281	32,863	7,541
Estimated total non-sampled insts.	135,265	41,720	16,562	21,814	8,326	22,840	9,838	11,479	2,686

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-43. Federally financed R&D expenditures at public universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Total, all institutions	6,598,442	1,012,497	841,087	567,137	250,132	3,496,809	151,313	202,580	76,885
1 University of Washington	257,840	10,061	14,210	56,500	9,252	157,375	5,878	4,564	0
2 University of Michigan	223,452	36,413	13,028	14,600	15,774	118,810	7,296	15,910	1,621
3 Univ of Cal San Diego	219,843	3,960	39,168	50,757	6,696	116,557	2,168	537	0
4 Univ of Cal San Francisco	202,283	0	0	0	0	202,283	0	0	0
5 Univ of Wis-Madison	199,816	28,565	26,405	14,470	5,891	103,548	8,510	12,410	17
6 Univ of Cal Los Angeles	180,743	20,499	22,661	8,923	6,798	113,800	5,668	2,394	0
7 University of Minnesota	165,926	12,894	12,795	4,080	15,173	112,873	4,918	3,193	0
8 Pennsylvania State Univ	151,877	77,248	10,991	8,774	2,468	43,460	3,463	3,380	2,093
9 Univ of Cal Berkeley	148,954	29,710	52,529	3,376	5,009	48,466	4,029	5,385	450
10 Univ. of Colorado	129,894	14,160	18,533	22,201	3,014	63,928	4,501	3,557	0
Total, 1st 10 insts.	1,880,628	233,510	210,320	183,681	70,075	1,081,100	46,431	51,330	4,181
11 University of Ill Urbana	129,086	28,768	32,063	6,152	10,845	26,433	3,708	3,024	18,093
12 Univ of Texas at Austin	124,614	48,462	39,288	12,048	6,688	12,372	2,197	2,479	1,080
13 University of Pittsburgh	121,077	4,132	9,792	364	1,486	101,585	2,092	1,015	611
14 Univ of NC at Chapel Hill	113,774	0	6,369	3,750	5,353	88,104	1,924	8,274	0
15 Texas A & M University	112,918	17,648	9,494	48,909	2,232	31,859	625	2,142	9
16 University of Arizona	105,912	8,840	28,044	6,695	3,229	54,515	899	2,118	1,572
17 Georgia Institute of Tech	101,295	68,676	10,335	4,006	11,503	1,510	822	4,347	96
18 Ohio State University	97,940	16,395	12,590	4,469	3,141	49,873	696	9,075	1,701
19 Univ of Cal Davis	91,318	6,447	7,367	858	438	74,989	636	583	0
20 University of Iowa	88,360	5,402	16,512	155	606	63,937	564	1,101	83
Total, 1st 20 insts.	2,966,922	438,280	382,174	271,087	115,596	1,586,277	60,594	85,488	27,426
21 Univ of MD College Park	82,469	22,857	34,588	5,728	4,691	7,528	1,237	5,840	0
22 Univ Alabama Birmingham	82,392	444	342	63	165	80,614	627	137	0
23 University of Utah	79,386	8,315	8,976	2,592	6,473	51,938	936	156	0
24 SUNY at Buffalo	77,628	7,930	4,580	279	5,546	57,144	1,327	822	0
25 Univ. Of Tennessee System	72,047	15,725	7,499	8,595	7,566	30,592	294	1,560	216
26 Indiana University	69,871	223	20,388	806	1,332	41,786	2,983	840	1,513
27 Purdue University	68,224	22,140	11,876	1,467	4,124	25,469	1,363	1,613	172
28 University of Virginia	68,151	11,675	9,644	4,940	3,070	36,557	2,194	19	52
29 University of Florida	67,590	11,261	5,634	2,205	2,824	43,203	928	925	610
30 Michigan State University	66,466	5,618	16,536	844	427	34,266	1,996	3,525	3,254
Total, 1st 30 insts.	3,701,146	544,468	502,237	298,606	151,814	1,995,374	74,479	100,925	33,243
31 SUNY at Stony Brook	63,608	2,278	13,900	7,197	3,727	33,866	1,752	865	23
32 New Mexico State Univ	62,872	39,864	2,297	7,370	2,683	8,912	40	975	731
33 UT SW Medical Ctr-Dallas	61,499	0	0	0	0	61,499	0	0	0
34 Colorado State University	59,766	9,945	4,807	9,028	856	29,092	2,365	3,673	0
35 Oregon State University	59,739	4,411	3,375	20,183	1,464	28,158	135	1,058	955
36 Rutgers the St Univ of NJ	56,625	7,836	10,687	2,509	7,100	18,987	3,017	6,446	43
37 University of Cincinnati	56,375	11,152	3,237	72	284	39,596	78	113	1,843
38 Univ of Cal Irvine	55,331	3,006	12,759	0	3,424	33,352	0	2,305	485
39 Utah State University	54,904	31,565	4,926	4,470	341	9,957	1,524	325	1,796
40 Univ of Cal Santa Barbara	52,777	19,643	13,769	7,290	3,345	2,172	2,147	4,411	0
Total, 1st 40 insts.	4,284,642	674,168	571,994	356,725	175,036	2,260,965	85,537	121,096	39,119
41 VA Polytech Inst & St U	51,281	25,142	4,176	6,130	1,289	12,344	884	1,316	0
42 N C State Univ at Raleigh	50,501	18,135	3,676	3,124	1,829	22,345	261	1,131	0
43 University of Georgia	48,962	605	3,050	1,342	1,967	39,128	1,502	1,368	0
44 Louisiana State Univ Sys	48,641	6,255	5,495	7,099	504	27,990	607	624	67
45 Univ of Ill Chicago	48,484	2,318	5,252	184	1,723	36,923	1,348	666	70
46 Univ of MD Balt Prof Sch	48,088	0	0	0	0	48,088	0	0	0
47 Univ of Hawaii-Manoa	47,684	943	16,647	14,473	776	10,987	147	443	3,266
48 University of Connecticut	45,967	3,488	840	4,093	460	33,685	2,781	549	71
49 Virginia Commonwith Univ	45,891	0	1,523	0	251	43,290	418	409	0
50 Iowa St U of Sci & Tech	45,144	14,732	2,333	186	3,666	19,752	292	3,738	445
Total, 1st 50 insts.	4,765,285	745,786	614,986	393,356	187,505	2,555,497	93,777	131,340	43,038

See explanatory information and SOURCE at end of table.

Table B-43. Federally financed R&D expenditures at public universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
51 U Tex Hlth Sci Ctr S Anto	41,048	0	0	0	0	41,048	0	0	0
52 University of New Mexico	40,033	17,494	2,205	895	440	15,837	1,172	1,281	709
53 University of Kentucky	39,828	6,188	1,887	69	835	26,957	207	1,239	2,446
54 Univ of Med & Dent of N J	39,092	0	0	0	0	39,092	0	0	0
55 Washington State Univ	38,213	3,732	2,741	236	416	22,342	147	2,361	6,238
56 U Tex Hlth Sci Ctr Houstn	36,478	0	0	0	0	35,940	0	538	0
57 Wayne State University	35,569	1,709	3,036	0	326	28,707	1,341	414	36
58 Univ of Mass - Worcester	35,413	0	0	0	0	35,413	0	0	0
59 UT MD Anderson Cancer Ctr	34,492	0	1,853	0	1,078	31,561	0	0	0
60 Oregon Hlth Sciences Univ	33,548	0i	0i	0i	0i	32,210i	1,338i	0i	0i
Total, 1st 60 insts.	5,138,999	774,909	626,708	394,556	190,600	2,864,604	97,982	137,173	52,467
61 Univ of Mass - Amherst	33,408	5,603	9,217	2,091	6,559	7,222	2,378	49	289
62 Arizona State University	33,148	5,915	8,651	8,403	1,139	4,766	2,056	2,193	25
63 U of VT & State Agr Coll	32,757	465	588	72	157	30,767	590e	0	118
64 Univ of Alaska Fairbanks	32,066	644	7,942	18,077	19	4,927	0	457	0
65 University of Kansas	31,992	2,176	3,032	848	198	19,523	770	0	5,445
66 Mississippi State Univ	29,746	13,499	1,109	602	175	11,984	0	1,228	1,149
67 University of Oklahoma	29,733	3,857	2,366	2,807	2,603	11,742	506	5,835	17
68 Univ of Missouri Columbia	28,047	2,667	1,405	329	325	20,848	648	1,798	27
69 West Virginia University	27,740	6,194	1,657	3,478	2,919	12,502	71	477	442
70 Florida State University	27,649	356	12,602	7,438	1,515	3,935	1,098	705	0
Total, 1st 70 insts.	5,445,285	816,285	675,277	438,701	206,209	2,992,820	106,099	149,915	59,979
71 Temple University	26,869	684	668	0	239	16,483	3,464	5,331	0
72 SUNY at Albany	25,988	0	1,986	3,302	479	15,445	2,430	2,346	0
73 Univ of Rhode Island	25,480e	2,541i	635i	15,098i	157i	2,720i	2,371i	1,803i	355i
74 Univ of Nebraska-Lincoln	25,382	1,386	4,142	1,483	454	17,019	363	346	189
75 Univ Alabama Huntsville	24,432	9,255	9,925	2,230	2,209	337	0	44	432
76 U Tex Med Brnch Galveston	24,281	0	0	0	0	24,281	0	0	0
77 Univ of South Carolina	23,743	4,805	3,634	3,842	718	7,384	1,447	1,850	83
78 U of Houston	21,881	10,821	4,234	216	454	4,211	1,720	166	59
79 University of Delaware	21,629	4,286	4,985	4,994	1,788	2,457	402	2,717	0
80 Univ of New Hampshire	21,591	1,951	828	13,077	545	3,762	159	1,269	0
Total, 1st 80 insts.	5,686,561	852,014	706,314	482,943	213,252	3,086,899	118,455	165,587	61,097
81 University of Oregon	21,002	1,411	7,788	2,137	574	7,177	1,370	545	0
82 Univ of Cal Santa Cruz	20,237	0	7,664	5,551	1,042	4,131	513	1,336	0
83 US Naval Postgrad School	20,171	6,175	2,046	3,217	4,906	0	0	2,715	1,112
84 Clemson University	18,771	6,327	1,726	452	1,271	7,435	29	1,481	50
85 Florida A & M University	18,698	2,540	2,173	0	74	13,894	5	12	0
86 Kans St U - Ag & App Sci	18,583	2,517	3,337	149	304	11,817	102	255	302
87 SUNY Hlth Sci Ctr - Brkln	18,458	0	0	0	0	18,458	0	0	0
88 Univ of South Florida	18,010	4,163	1,235	3,352	65	7,563	1,255	363	14
89 Med Univ of S. Carolina	17,174	0	0	0	0	17,174	0	0	0
90 Univ of Cal Riverside	17,167	7	3,770	639	421	11,622	621	87	0
Total, 1st 90 insts.	5,874,832	875,154	736,053	498,440	221,909	3,185,970	122,350	172,381	62,575
91 University of Idaho	16,601	4,304	795	1,028	110	10,188	26	150	0
92 Unif Serv Univ of Hlth Sc	16,176	0	0	0	0	16,176	0	0	0
93 University of Mississippi	16,097	2,634	4,149	0	72	8,555	225	462	0
94 Univ of North Dakota	15,895	9,090	172	1,086	0	4,662	6	383	496
95 San Diego State Univ	15,679	1,874	748	278	1,233	7,393	2,643	407	1,103
96 Auburn University	15,415	6,366	1,218	143	161	6,604	85	57	781
97 Oklahoma State University	15,384	4,524	1,861	94	238	7,626	95	790	156
98 Univ of Nevada - Reno	14,085	3,580	659	2,432	31	7,152	0	147	84
99 Montana State University	13,443	3,270	2,341	93	420	7,167	0	152	0
100 University of Wyoming	13,298	1,301	1,405	2,597	310	7,145	291	187	62
Total, 1st 100 insts.	6,026,905	912,097	749,401	506,191	224,484	3,268,638	125,721	175,116	65,257
Total, all other sampled insts.	515,854	87,112	82,166	51,561	21,877	219,879	16,934	25,208	11,117
Estimated total non-sampled insts.	55,683	13,288	9,520	9,385	3,771	8,292	8,658	2,256	511

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-44. R&D expenditures at private universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
Total, all institutions	6,245,329	1,021,320	764,682	277,533	374,804	3,415,059	102,141	214,289	75,502
1 Johns Hopkins Univ	735,542	225,382	130,059	41,082	86,820	226,247	1,047	8,294	16,611
2 Stanford University	367,500	107,500	75,680	6,882	13,347	155,678	3,698	5,195	0
3 Mass Inst of Technology	324,453	140,969	95,935	13,069	16,406	38,101	8,018	6,467	5,488
4 Cornell University	299,342	43,951	44,587	5,106	27,235	163,950	3,570	10,923	20
5 Harvard University	253,126	2,695	27,740	9,839	2,726	157,253	3,609	43,787	5,477
6 Univ of Pennsylvania	222,424	14,469	18,434	257	7,694	158,321	1,987	17,563	3,699
7 Yale University	211,569	7,700	19,707	2,309	5,821	167,790	4,672	3,570	0
8 Columbia Univ Main Div	199,516	17,526	16,152	27,480	4,318	127,113	1,938	4,989	0
9 Univ of Southern Cal	194,740	26,816	8,200	12,736	35,749	95,233	10,191	5,570	245
10 Duke University	188,678	7,515	11,358	3,492	2,301	151,282	4,538	8,192	0
Total, 1st 10 insts.	2,997,370	594,523	447,852	122,252	202,417	1,440,968	43,268	114,550	31,540
11 Washington University	170,339	3,120	7,136	2,274	6,732	149,515	554	1,008	0
12 Baylor Col of Medicine	167,998	0	0	0	0	167,998	0	0	0
13 Northwestern University	141,975	20,049	11,892	735	4,948	70,979	1,536	1,689	30,347
14 University of Rochester	139,992	29,559	13,472	294	2,205	87,647	5,812	817	186
15 New York University	122,399	0	4,400	208	10,862	95,774	3,787	6,979	389
16 Case Western Reserve Univ	118,391	25,066	4,828	439	408	82,364	1,107	4,179	0
17 University of Chicago	118,123	0	27,867	3,156	3,262	79,388	1,539	2,911	0
18 California Inst of Tech	111,733	19,203	47,840	13,114	5,529	24,954	0	430	663
19 Carnegie-Mellon Univ	110,571	27,183	6,484	2,232	51,040	12,957	4,682	4,986	1,007
20 Emory University	101,398	0	6,574	3	217	89,463	926	4,215	0
Total, 1st 20 insts.	4,300,289	718,703	578,145	144,707	287,620	2,302,007	63,211	141,764	64,132
21 University of Miami	98,786	1,696	1,276	19,840	381	71,815	1,186	2,554	38
22 Vanderbilt University	96,784	8,309	6,663	138	536	75,026	1,844	4,208	60
23 Princeton University	93,958	21,289	25,628	7,150	7,646	16,684	5,853	9,708	0
24 Yeshiva University	87,198	0	0	0	0	87,198	0	0	0
25 Boston University	83,701	5,579	10,394	177	2,907	58,315	381	1,629	4,319
26 Woods Hole Oceanographic Inst	82,845	13,129	0	69,716	0	0	0	0	0
27 CUNY Mt Sinai Sch of Med	75,561	0	0	0	0	75,561	0	0	0
28 Rockefeller University	75,102	0	7,145	0	953	67,004	0	0	0
29 Tulane University	72,190	6,682	2,224	272	747	53,194	712	7,855	504
30 Georgetown University	64,937	0	5,426	846	1,162	54,878	81	2,414	130
Total, 1st 30 insts.	5,131,349	775,387	636,901	242,846	301,952	2,861,680	73,268	170,132	69,183
31 Brown University	55,585	9,707	7,984	5,106	8,989	19,652	1,518	2,649	0
32 Dartmouth College	53,668	5,536	2,238	1,093	789	43,070	400	149	393
33 Rensselaer Polytech Inst	50,769	37,898	7,162	951	2,946	777	145	334	556
34 Tufts University	50,633	2,088	1,631	3,688	124	40,966	782	1,354	0
35 Wake Forest University	49,919	0	746	0	105	48,901	0	0	167
36 Medical College of Wis	43,579	0	0	0	0	43,579	0	0	0
37 Thomas Jefferson Univ	41,329	0	0	0	0	41,329	0	0	0
38 University of Dayton	40,909	36,086	1,116	348	1,516	401	1,041	302	99
39 George Washington Univ	39,335	6,637	1,240	23	5,965	17,910	530	7,025	5
40 Brandeis University	35,229	0	3,348	0	1,078	16,177	1,453	13,173	0
Total, 1st 40 insts.	5,592,304	873,339	662,346	254,055	323,464	3,134,442	79,137	195,118	70,403
41 Syracuse University	32,145	5,325	5,378	1,313	10,146	5,362	788	3,800	35
42 Lehigh University	31,822	23,621	5,357	506	837	801	270	430	0
43 Loyola Univ - Chicago	30,099	0	472	0	1,087	27,683	243	611	3
44 Rice University	29,424	4,566	9,191	2,878	9,319	2,999	372	99	0
45 Rush University	26,184	0	0	0	0	24,000	2,184	0	0
46 The Medical Col of Penna	25,835	0	0	0	0	25,835	0	0	0
47 Drexel University	23,184	13,978	3,301	848	1,546	1,930	327	1,254	0
48 University of Notre Dame	22,679	6,641	11,706	171	464	3,145	252	146	154
49 St Louis University	19,932	0	17	659	34	19,222	0	0	0
50 Howard University	17,576	4,316	1,722	1	303	9,534	447	1,131	122
Total, 1st 50 insts.	5,851,184	931,786	699,490	260,431	347,200	3,254,953	84,018	202,589	70,717

See explanatory information and SOURCE at end of table.

Table B-44. R&D expenditures at private universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
51 Hahnemann University	17,332	0	0	0	0	17,332	0	0	0
52 New York Medical College	16,799	0	0	0	0	16,799	0	0	0
53 Northeastern University	15,876	5,847	3,269	0	1,897	3,441	904	518	0
54 Stevens Institute of Tech	14,580	13,791	651	0	77	0	0	61	0
55 Brigham Young University	14,469	6,912	2,555	213	408	2,772	154	441	1,014
56 Oregon Grad Inst Sci/Tech	12,332	3,529	3,707	2,687	2,409	0	0	0	0
57 Clark Atlanta University	11,483	1,312	3,519	119	1,810	4,482	0	241	0
58 Eastern VA Medical School	11,238	0	0	0	0	11,238	0	0	0
59 Boston College	10,400	0	2,605	515	6,036	823	229	192	0
60 Albany Medical College	9,681	0	0	0	0	9,681	0	0	0
Total, 1st 60 insts.	5,985,374	963,177	715,796	263,985	359,837	3,321,521	85,305	204,042	71,731
61 Clarkson University	9,518	6,345	2,193	0	445	402	98	0	35
62 Polytechnic University	9,273	6,684	2,438	0	66	0	0	0	85
63 Worcester Poly Institute	8,925	4,870	588	0	3,116	308	0	0	43
64 Mercer University	8,554	7,357	220	0	0	977	0	0	0
65 University of Denver	8,284	502	3,323	8	12	794	2,925	720	0
66 Creighton University	8,047	0	95	0	0	7,952	0	0	0
67 Loma Linda University	8,028	0	0	0	0	8,028	0	0	0
68 Chas R Drew U of Med & Sc	7,862	0	0	0	0	7,862	0	0	0
69 Southern Methodist Univ	7,722	923	829	2,874	655	785	144	1,090	422
70 Inst Paper Sci and Tech	7,474	4,982	1,385	0	443	684	0	0	0
Total, 1st 70 insts.	6,069,061	994,820	726,867	266,847	364,574	3,349,313	88,472	205,852	72,316
71 Catholic Univ of America	7,346	1,255	4,751	0	1	447	503	389	0
72 Meharry Medical College	7,258	0	0	0	0	7,258	0	0	0
73 Morehouse School of Med	7,106	0i	0i	0i	0i	7,106i	0i	0i	0i
74 Illinois Inst of Tech	6,293	4,575	925	270	210	27	286	0	0
75 University of Tulsa	5,961	4,011	409	245	343	757	179	17	0
76 Florida Inst of Tech	5,924	1,600	732	1,392	521	1,566	86	0	27
77 U Hlth Sci/Chcgo Med Schl	5,899	0	0	0	0	5,746	153	0	0
78 Wesleyan University	5,603	0	2,243	66	911	2,041	220	122	0
79 Tuskegee University	4,800	675	266	0	0	3,754	0	49	56
80 American University	4,330	0	1,381	0	181	1,280	197	1,291	0
Total, 1st 80 insts.	6,129,581	1,006,936	737,574	268,820	366,741	3,379,295	90,096	207,720	72,399
81 Marquette University	4,256	1,452	645	0	211	1,236	211	97	404
82 Alfred University	4,117	4,117	0	0	0	0	0	0	0
83 Hampton University	3,272	112	2,116	0	1,044	0	0	0	0
84 Texas Christian Univ	3,128	0	651	11	2	221	2,236	7	0
85 New York Inst Technology	3,085i	743i	285i	0i	1,485i	572i	0i	0i	0i
86 Xavier University of LA	2,379	0	667	0	0	1,712	0	0	0
87 Institute of Textile Tech	2,281	1,480	344	115	342e	0	0	0	0
88 Santa Clara University	2,103	1,027	352	0	45	380	7	292	0
89 Amherst College	2,080	0	923	94	89	691	27	67	189
90 Fordham University	1,936	0	113	0	47	657	21	1,098	0
Total, 1st 90 insts.	6,158,218	1,015,867	743,670	269,040	370,006	3,384,764	92,598	209,281	72,992
91 Bryn Mawr College	1,746	0	444	158	215	331	145	453	0
92 University of Detroit	1,731	1,204i	189i	0i	0i	101i	115i	48i	74i
93 Occidental College	1,722	0	546	92	21	1,044	8	11	0
94 Ponce School of Medicine	1,715	0	0	0	0	1,715	0	0	0
95 Clark University	1,694	0	736	450	49	79	340	40	0
96 New Sch For Soc Research	1,572	0	0	0	0	0	347	1,225	0
97 Villanova University	1,560	530	258	0	47	494	136	95	0
98 Pomona College	1,531	0i	664i	8i	133i	234i	155i	59i	258i
99 Smith College	1,481i	0i	200i	199i	129i	322i	168i	463i	0i
100 Baylor University	1,469	1	1,133	87	121	125	2	0	0
Total, 1st 100 insts.	6,174,439	1,017,602	747,860	270,034	370,721	3,389,209	94,014	211,675	73,324
Total, all other sampled insts.	34,298	1,641	5,562	2,922	1,866	14,913	5,345	1,608	441
Estimated total non-sampled insts.	36,592	2,077	11,260	4,577	2,217	10,937	2,782	1,006	1,737

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-45. Federally financed R&D expenditures at private universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Total, all institutions	4,488,590	742,169	635,356	232,046	310,027	2,395,962	70,328	75,849	26,853
1 Johns Hopkins Univ	666,696	220,774	127,434	38,508	86,579	184,460	873	4,315	3,753
2 Stanford University	265,687	79,342	60,441	4,052	10,302	107,453	2,633	1,464	0
3 Mass Inst of Technology	237,972	93,025	79,456	10,704	12,192	33,345	4,000	1,691	3,559
4 Cornell University	180,361	27,932	36,739	3,054	22,574	86,116	1,568	2,377	1
5 Columbia Univ Main Div	174,777	13,873	15,540	27,068	3,436	108,904	1,938	4,018	0
6 Harvard University	174,632	2,110	23,826	7,640	2,572	119,764	2,418	11,130	5,172
7 Univ of Pennsylvania	159,574	9,895	15,519	158	6,679	115,035	1,928	7,221	3,139
8 Yale University	157,345	5,076	16,856	1,732	5,179	125,986	1,866	670	0
9 Univ of Southern Cal	141,713	20,511	7,570	9,939	32,858	60,191	8,252	2,369	3
10 Duke University	125,742	5,693	9,629	2,296	1,751	97,305	4,409	4,659	0
Total, 1st 10 insts.	2,284,499	478,231	393,010	105,151	184,122	1,038,539	29,885	39,934	15,627
11 Washington University	123,863	1,611	5,985	1,618	4,654	108,721	483	791	0
12 University of Rochester	110,413	25,786	12,089	201	2,041	66,543	2,979	743	51
13 California Inst of Tech	99,198	16,783	43,122	12,154	5,172	21,252	0	292	423
14 University of Chicago	97,182	0	24,995	2,201	3,035	65,435	1,005	511	0
15 New York University	87,081	0	3,708	36	9,454	69,611	3,217	999	56
16 Baylor Col of Medicine	85,734	0	0	0	0	85,734	0	0	0
17 Case Western Reserve Univ	83,387	15,877	3,367	241	405	62,411	258	828	0
18 Vanderbilt University	79,594	6,193	5,695	114	487	62,685	1,387	2,973	60
19 University of Miami	76,477	860	1,192	17,628	357	53,692	967	1,767	14
20 Woods Hole Oceanographic Inst	74,229	12,444	0	61,785	0	0	0	0	0
Total, 1st 20 insts.	3,201,657	557,785	493,143	201,129	209,727	1,634,623	40,181	48,838	16,231
21 Emory University	69,894	0	5,551	0	192	63,043	649	459	0
22 Carnegie-Mellon Univ	69,848	14,832	5,033	156	38,650	5,070	3,325	2,678	104
23 Northwestern University	69,241	11,812	8,755	612	3,305	37,909	1,214	408	5,226
24 Yeshiva University	68,152	0	0	0	0	68,152	0	0	0
25 Boston University	66,677	4,148	8,634	95	2,881	47,243	297	478	2,901
26 Princeton University	55,722	10,989	18,933	4,526	5,429	11,044	3,237	1,564	0
27 CUNY Mt Sinai Sch of Med	50,853	0	0	0	0	50,853	0	0	0
28 Georgetown University	42,659	0	4,173	698	885	35,335	67	1,394	107
29 Tufts University	42,112	1,723	1,515	3,375	124	34,468	712	195	0
30 Dartmouth College	38,791	4,172	1,764	157	685	31,626	307	31	49
Total, 1st 30 insts.	3,775,606	605,461	547,501	210,748	261,878	2,019,366	49,989	56,045	24,618
31 Brown University	37,856	7,304	4,963	4,183	6,101	13,354	1,034	917	0
32 Rockefeller University	37,832	0	4,445	0	33	33,354	0	0	0
33 Wake Forest University	37,505	0	519	0	80	36,886	0	0	20
34 University of Dayton	34,927	30,744	865	270	1,493	262	1,010	283	0
35 Tulane University	33,304	2,054	829	80	270	25,928	242	3,653	248
36 Thomas Jefferson Univ	28,861	0	0	0	0	28,861	0	0	0
37 George Washington Univ	28,158	5,368	1,011	21	5,712	13,397	379	2,268	2
38 Medical College of Wis	27,668	0	0	0	0	27,668	0	0	0
39 Rensselaer Polytech Inst	24,313	18,149	3,430	456	1,411	372	69	160	266
40 Brandeis University	21,800	0	2,619	0	783	11,592	1,167	5,639	0
Total, 1st 40 insts.	4,087,830	669,080	566,182	215,758	277,761	2,211,040	53,890	68,965	25,154
41 Rice University	21,356	2,497	7,234	1,920	7,243	2,090	284	88	0
42 Loyola Univ - Chicago	18,071	0	345	0	1,023	16,439	13	251	0
43 The Medical Col of Penna	17,914	0	0	0	0	17,914	0	0	0
44 St Louis University	17,708	0	10	659	34	17,005	0	0	0
45 Lehigh University	17,426	12,919	3,217	308	268	272	184	258	0
46 University of Notre Dame	15,058	2,917	9,812	16	419	1,564	187	131	12
47 Syracuse University	14,715	1,667	3,724	632	2,643	4,824	523	702	0
48 Howard University	13,976	3,605	1,645	1	303	7,340	446	514	122
49 New York Medical College	13,081	0	0	0	0	13,081	0	0	0
50 Northeastern University	12,841	4,405	2,802	0	1,859	2,759	756	260	0
Total, 1st 50 insts.	4,249,956	697,090	594,971	219,294	291,553	2,294,308	56,283	71,169	25,288

See explanatory information and SOURCE at end of table.

Table B-45. Federally financed R&D expenditures at private universities and colleges, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
51 Clark Atlanta University	9,985	1,107	3,115	107	1,602	3,928	0	126	0
52 Drexel University	9,869	6,445	1,713	606	250	800	0	55	0
53 Hahnemann University	9,797	0	0	0	0	9,797	0	0	0
54 Rush University	9,130	0	0	0	0	8,195	935	0	0
55 Boston College	8,695	0	2,367	494	4,963	765	80	26	0
56 Brigham Young University	8,106	4,223	940	159	210	1,676	72	152	674
57 Mercer University	7,325	6,835	0	0	0	490	0	0	0
58 University of Denver	7,236	487	2,774	8	12	688	2,665	602	0
59 Oregon Grad Inst Sci/Tech	7,138	2,223	1,991	1,273	1,651	0	0	0	0
60 Eastern VA Medical School	6,966	0	0	0	0	6,966	0	0	0
Total, 1st 60 insts.	4,334,203	718,410	607,871	221,941	300,241	2,327,613	60,035	72,130	25,962
61 Albany Medical College	6,740	0	0	0	0	6,740	0	0	0
62 Meharry Medical College	6,673	0	0	0	0	6,673	0	0	0
63 Morehouse School of Med	6,155	0i	0i	0i	0i	6,155i	0i	0i	0i
64 Worcester Poly Institute	6,018	2,590	479	0	2,758	159	0	0	32
65 Chas R Drew U of Med & Sc	5,949	0	0	0	0	5,949	0	0	0
66 Polytechnic University	5,600	4,140	1,360	0	60	0	0	0	40
67 Stevens Institute of Tech	5,435	4,937	473	0	25	0	0	0	0
68 Catholic Univ of America	5,388	1,221	3,223	0	1	403	435	105	0
69 Southern Methodist Univ	5,138	313	119	2,482	487	692	132	849	64
70 Tuskegee University	4,498	632	194	0	0	3,567	0	49	56
Total, 1st 70 insts.	4,391,797	732,243	613,719	224,423	303,572	2,357,951	60,602	73,133	26,154
71 Clarkson University	4,229	2,645	852	0	396	242	94	0	0
72 U Hlth Sci/Chgo Med Schl	4,167	0	0	0	0	4,033	134	0	0
73 Illinois Inst of Tech	4,165	3,082	447	223	163	19	251	0	0
74 Loma Linda University	4,036	0	0	0	0	4,036	0	0	0
75 American University	3,926	0	1,206	0	146	1,242	194	1,138	0
76 Wesleyan University	3,577	0	1,631	13	734	981	205	33	0
77 Creighton University	3,478	0	66	0	0	3,412	0	0	0
78 Hampton University	3,272	112	2,116	0	1,044	0	0	0	0
79 Texas Christian Univ	2,785	0	364	9	0	159	2,233	0	0
80 Marquette University	2,612	647	487	0	140	940	211	0	187
Total, 1st 80 insts.	4,428,024	738,709	620,868	224,668	306,195	2,372,995	63,924	74,304	26,341
81 Xavier University of LA	2,385	0	667	0	0	1,698	0	0	0
82 Florida Inst of Tech	2,080	346	180	353	381	780	29	0	11
83 Ponce School of Medicine	1,573	0	0	0	0	1,573	0	0	0
84 Fordham University	1,468	0	108	0	47	359	0	954	0
85 University of Tulsa	1,389	524	213	183	50	249	150	0	0
86 Inst Paper Sci and Tech	1,317	716	415	0	186	0	0	0	0
87 Wentworth Inst of Tech	1,287	0	0	1,287	0	0	0	0	0
88 Fisk University	1,235	0	1,012	0	0	223	0	0	0
89 Morris Brown College	1,217	0i	160i	0i	0i	713i	344i	0i	0i
90 Morehouse College	1,214	0	97	0	0	876	169	72	0
Total, 1st 90 insts.	4,443,149	740,295	623,740	226,491	306,859	2,379,466	64,616	75,330	26,352
91 Clark University	1,121	0	643	244	29	78	127	0	0
92 U Ctrl Del Caribe Esc Med	1,100	0	0	0	0	1,100	0	0	0
93 University of the Pacific	995	68	34	0	0	0	893	0	0
94 Nova University	974	0	0	823	0	0	151	0	0
95 Amherst College	933	0	470	4	22	413	24	0	0
96 Occidental College	908	0	479	77	0	352	0	0	0
97 Villanova University	882	300	148	0	27	279	77	53	0
98 Barnard College	869	0	75	0	33	172	587	2	0
99 Bryn Mawr College	801	0	249	147	167	181	0	57	0
100 Rust College	798	199	194e	77e	173	155e	0	0	0
Total, 1st 100 insts.	4,452,530	740,862	626,030	227,863	307,310	2,382,196	66,475	75,442	26,352
Total, all other sampled insts.	15,702	1,032	3,172	325	1,329	7,460	1,841	382	161
Estimated total non-sampled insts.	20,358	275	6,154	3,858	1,388	6,306	2,012	25	340

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-46. Total and federally financed R&D expenditures at historically black colleges and universities: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	177,899	150,305	142,452	130,728	146,707	122,080	117,200	106,548
1 Florida A & M University	22,230	18,552	15,847	14,171	18,698	15,592	13,110	10,509
2 Howard University	17,576	15,731	17,382	17,125i	13,976	10,754	13,067	12,146i
3 NC Ag & Tech State Univ	11,914	10,427	8,657	6,706	8,196	8,205	7,503	5,752
4 Clark Atlanta University	11,483	8,655	7,896i	7,137i	9,985	6,538	6,055i	5,575i
5 Meharry Medical College	7,258	7,249	6,663	6,564	6,673	7,014	6,391	6,397
6 Morehouse School of Med	7,106	6,291	5,891	4,320	6,155	5,020i	5,149	4,238
7 Alabama A & M University	7,053	6,699	7,010	6,272	5,635	5,481	5,560	4,801
8 Southern U - All Campuses	6,813	5,942	5,237i	4,615	4,407	4,332	4,435i	3,801e
9 Prairie View A & M Univ	6,098	3,623	3,521	3,680	4,824	3,373	3,406	3,568
10 Virginia State University	6,075	5,795	3,258	2,620	6,031	5,347	2,744	2,056
Total, 1st 10 insts.	103,606	88,964	81,362	73,210	84,580	71,656	67,420	58,843
11 Tuskegee University	4,800	4,426	5,089	5,348	4,498	4,137	4,783	4,967
12 U of the Virgin Islands	4,589e	4,736i	4,883e	4,734	2,398e	2,519i	2,639e	2,600
13 Tennessee State Univ	4,475	3,709	3,300	3,442	4,465	3,701	3,290	3,382
14 Jackson State University	4,065	3,912	3,762	3,747	3,849	3,429	3,381	3,624
15 South Carolina St College	3,665	2,526	2,593	1,694i	2,075	1,309	1,308	1,014i
16 U of MD Eastern Shore	3,640	1,620	1,850	2,944	3,096	1,371	1,552	2,203
17 Hampton University	3,272	3,345	2,307	2,168	3,272	3,345	2,307	2,168
18 Lincoln University	3,194	3,027	2,771	2,901	2,851	2,763	2,600	2,706
19 University of D C	2,900	2,985	2,569	2,271i	1,600	1,585	1,455	1,330i
20 Fort Valley State College	2,711	2,370	2,313	2,173	2,364	2,047	1,938	1,741
Total, 1st 20 insts.	140,917	121,500	112,799	104,632	115,068	97,862	92,673	84,578
21 Kentucky State University	2,525	2,026	2,856	1,721	2,525	2,026	2,856	1,721
22 Alcorn State University	2,517	2,041	1,935	1,850	2,132	1,665	1,487	1,850
23 Xavier University of LA	2,379	2,424	1,902	1,294	2,365	2,424	1,902	1,294
24 Univ of Ark Pine Bluff	2,372	2,419	1,188	1,148	2,372	2,176	1,188	1,148
25 Albany State College	2,339	1,172	1,173	1,725	627	536	516	653
26 Texas Southern Univ	2,329	2,101	1,546	1,519	2,028	1,810	1,363	1,293
27 Langston University	1,750	1,310	1,200	2,349	1,446	1,310	1,200	1,981
28 Central State University	1,691	1,840	3,976	673	930	680	2,323	449
29 Delaware State College	1,387	1,330	1,027	1,027	1,253	915	920	920
30 Morris Brown College	1,341e	887	647e	164	1,217e	442	464e	164
Total, 1st 30 insts.	161,547	138,850	130,249	118,102	131,963	111,846	106,892	96,031
31 Fisk University	1,317	641	1,156	1,157	1,235	616	1,156	1,131
32 Tougaloo College	1,302	1,262	1,028	1,191	702	684	566	787
33 Morehouse College	1,223	926	868	1,093	1,214	917	868	997
34 Morgan State University	1,223	701	657	649	1,179	683	655	638
35 Lincoln University (PA)	1,090	510	845	768e	953	437	632	692e
36 Bennett College	914	64	425	364	784	62	358	229
37 Rust College	798	289	156	214	798	271	156	214
38 Selma University	798	650	790	816	798	650	790	816
39 Norfolk State University	793	752	826	652	789	726	825	848
40 North Carolina Cntrl Univ	755	477i	199	555e	683	441i	199	422e
Total, 1st 40 insts.	171,760	145,122	137,199	125,561	141,078	117,333	113,097	102,805
41 Benedict College	702	0	0	0	702	0	0	0
42 Bethune Cookman College	626	599	554	440	590	548	494	420
43 Alabama State University	614	448	423	456	502	442	403	456
44 Winston-Salem State Univ	583	617	532	650	583	617	532	650
45 Spelman College	547	444	505	399	514	358	348	272
46 Grambling State Univ	520i	450i	409	106	222i	200i	182	106
47 Bowie State University	425	234	35	0	425	234	35	0
48 Elizabeth City State Univ	341	0	15	26	339	0	15	26
49 Johnson C. Smith Univ	276	475	477	480	276	454	467	480
50 Claflin College	240	383	205	0e	240	381	203	0e
Total, 1st 50 insts.	176,634	148,772	140,354	128,118	145,471	120,567	115,776	105,015

See explanatory information and SOURCE at end of table.

Table B-46. Total and federally financed R&D expenditures at historically black colleges and universities: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 Oakwood College	206	179	226	0	206	179	226	0
52 Savannah State College	195	212	221	179	195	212	221	179
53 Fayetteville State Univ	187	275	154	360	187	275	154	258
54 West Virginia State Col	179	218	146	81	172	210	138	75
55 Philander Smith College	145	154	120	165	136	154	120	154
56 Coppin State College	103	212	1,017	834	103	212	387	388
57 Jarvis Christian College	97	60	75	60	97	60	75	60
58 Knoxville College	76i	59i	66i	60	63i	47i	55i	50
59 Miss Valley State Univ	71	64	43	14	71	64	43	14
60 Shaw University	6	0	0	0	6	0	0	0
Total, 1st 60 insts.	177,899	150,205	142,422	129,871	146,707	121,980	117,195	106,193
61 Cheyney University of PA	0	0	0	0e	0	0	0	0e
62 Dillard University	0	0	0	469	0	0	0	0
63 Paul Quinn College	0	0	0	0	0	0	0	0
64 Stillman College	0	0	0	0	0	0	0	0
65 Talladega College	0	0	0	366	0	0	0	350
66 Trenholm State Tech Col	0	100	30	22	0	100	5	5
67 Voorhees College	0	0	0	0	0	0	0	0
68 Wiley College	0	0	0	0	0	0	0	0
Total, 1st 68 insts.	177,899	150,305	142,452	130,728	146,707	122,080	117,200	106,548

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-47. Total and federally financed R&D expenditures in engineering at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	3,082,262	2,907,412	2,663,146	2,397,709	1,754,667	1,634,901	1,524,205	1,383,131
1 Johns Hopkins Univ	225,382	216,567	204,793	209,748	220,774	211,994	200,964	206,629
2 Mass Inst of Technology	140,969	132,421	127,004	116,367	93,025	87,421	85,559	80,356
3 Georgia Institute of Tech	122,215	124,708	116,867	116,109	68,676	71,606	65,901	65,178
4 Pennsylvania State Univ	119,878	120,336	118,070	97,276	77,248	78,021	74,737	59,260
5 Stanford University	107,500	92,511	87,187	78,311	79,342	73,304	75,484	65,502
6 Univ of Texas at Austin	85,430	86,521	58,968	50,944	48,462	43,157	26,031	22,894
7 Texas A & M University	77,462	65,627	62,791	52,541	17,648	12,826	13,388	14,743
8 University of Michigan	64,901	63,841	53,905	46,866	36,413	36,653	31,447	27,507
9 Univ of Cal Berkeley	62,178	57,481	52,124	47,393	29,710	29,047	29,399	28,936
10 University of Ill Urbana	53,044	54,694	49,299	58,003	28,768	29,347	28,734	37,780
Total, 1st 10 insts.	1,058,959	1,014,707	931,008	873,558	700,066	673,376	631,644	608,785
11 VA Polytech Inst & St U	49,830	48,407	44,473	36,123	25,142	24,273	22,304	17,234
12 Univ of MD College Park	47,806	36,868	43,964	41,624	22,857	16,331	16,336	15,655
13 New Mexico State Univ	46,532	44,091	35,725	30,060	39,864	37,980	32,984	27,538
14 Univ of Wis-Madison	46,312	43,341	39,781	34,697	28,565	25,715	24,474	21,745
15 N C State Univ at Raleigh	44,797	46,343	40,181	34,421	18,135	17,192	15,077	11,209
16 Cornell University	43,951	43,632	39,663	38,648	27,932	24,456	22,780	22,630
17 Ohio State University	43,764	43,054	43,854	40,616	16,395	15,808	13,771	12,567
18 Utah State University	38,155	44,842	40,694	23,852	31,565	40,709	38,495	21,007
19 Purdue University	37,949	35,130	32,466	32,873	22,140	19,814	18,301	18,733
20 Rensselaer Polytech Inst	37,898	37,927	33,843	26,877	18,149	17,692	16,466	13,259
Total, 1st 20 insts.	1,495,953	1,438,342	1,325,652	1,213,349	950,810	913,346	852,632	790,362
21 University of Dayton	36,086	33,660	30,722	24,511	30,744	27,703	24,163	20,423
22 Iowa St U of Sci & Tech	31,512	36,768	26,974	25,225	14,732	12,747	11,498	8,821
23 University of Rochester	29,559	22,304	22,858	23,768	25,786	19,284	19,203	19,943
24 SUNY at Buffalo	28,827	22,881	23,166	19,630	7,930	7,579	7,900	6,486
25 Univ of Cal Los Angeles	28,471	25,715	24,213	22,975	20,499	19,259	16,873	16,679
26 Univ. Of Tennessee System	27,569	30,817	27,124	24,895	15,725	15,411	15,260	15,126
27 Carnegie-Mellon Univ	27,183	24,615	24,000	25,982	14,832	14,021	13,040	14,934
28 University of New Mexico	26,979	22,083	20,402	14,763	17,494	11,226	10,689	7,444
29 Univ of Southern Cal	26,816	24,010	27,713	24,525	20,511	19,446	18,427	16,495
30 University of Minnesota	26,053	27,460	27,943	27,709	12,894	10,524	10,781	10,421
Total, 1st 30 insts.	1,785,008	1,708,655	1,580,767	1,447,332	1,131,957	1,070,546	1,000,484	927,134
31 U of Houston	25,305	23,320	8,027	8,020	10,821	9,353	2,754	3,137
32 Case Western Reserve Univ	25,066	23,770	19,049	18,089	15,877	15,564	12,638	13,173
33 Rutgers the St Univ of NJ	24,726	24,591	21,694	19,463	7,836	6,863	4,262	3,680
34 University of Florida	24,476	29,445	30,585	27,162	11,261	13,936	14,766	13,379
35 Clemson University	23,977	18,715	16,414	14,179	6,327	5,134	4,703	3,239
36 Univ of Cal Santa Barbara	23,647	20,648	22,214	15,237	19,643	16,677	18,807	12,352
37 Lehigh University	23,621	20,185	19,596	18,214	12,919	7,703	7,353	6,186
38 University of Connecticut	23,024	22,912	22,160	20,039	3,488	2,649	3,450	3,498
39 Univ. of Colorado	22,714	21,550	20,660	15,625	14,160	13,920	13,704	10,816
40 Louisiana State Univ Sys	22,443	31,768	20,860	13,216	6,255	18,351	8,345	2,979
Total, 1st 40 insts.	2,024,007	1,945,559	1,782,056	1,616,576	1,240,544	1,180,696	1,091,266	999,573
41 Arizona State University	21,491	20,129	18,618	14,642	5,915	5,400	4,933	5,742
42 Princeton University	21,289	20,134	23,048	20,957	10,989	10,283	11,931	10,508
43 Northwestern University	20,049	19,603	17,407	14,728	11,812	10,294	10,195	8,200
44 University of Arizona	19,539	18,080	13,844	12,583	8,840	7,394	6,666	6,114
45 California Inst of Tech	19,203	17,931	17,363	16,670	16,783	15,677	15,186	13,641
46 University of Cincinnati	19,056	15,961	14,150	12,911	11,152	7,903	6,903	5,956
47 University of Virginia	18,988	17,748	18,116	14,382	11,675	10,565	9,776	7,621
48 University of Washington	18,352	20,497	16,985	16,738	10,061	12,912	11,359	10,581
49 Auburn University	18,156	22,182	18,819	16,996	6,366	6,646	5,017	7,664
50 Mississippi State Univ	18,116	15,360	12,433	10,145	13,499	10,243	8,199	6,791
Total, 1st 50 insts.	2,218,246	2,133,184	1,952,839	1,767,328	1,347,636	1,278,013	1,181,431	1,082,391

See explanatory information and SOURCE at end of table.

Table B-47. Total and federally financed R&D expenditures in engineering at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 Columbia Univ Main Div	17,526	16,785	17,647	15,429	13,873	10,828	11,777	9,386
52 N Mex Inst Mining & Tech	16,797	16,445 I	16,090	16,325	4,488	3,503 I	2,519	4,378
53 University of Kentucky	16,601	14,610	12,172	11,336	6,188	3,858	2,821	3,032
54 Michigan State University	16,382	15,340 I	14,650	11,494	5,618	5,211 I	4,922	3,604
55 Colorado State University	15,625	16,406	16,026	13,853	9,945	11,117	11,768	10,472
56 University of Utah	14,501	15,116	16,502	15,959	8,315	9,070	7,872	9,365
57 Univ of Pennsylvania	14,469	10,620	10,832	9,981	9,895	6,960	6,685	6,439
58 Oklahoma State University	14,335	13,203	15,639	9,812	4,524	6,027	6,931	3,577
59 Drexel University	13,978	12,506	12,835	11,101	6,445	4,957	4,005	3,336
60 University of Oklahoma	13,866	11,712	8,735	8,529	3,857	3,076	2,009	2,247
Total, 1st 60 insts.	2,372,326	2,275,927	2,093,967	1,891,147	1,420,784	1,342,620	1,242,740	1,138,227
61 Stevens Institute of Tech	13,791	7,469	5,226	4,177	4,937	2,600	2,217	2,006
62 Univ Alabama Huntsville	13,206	12,781	11,918	10,156	9,255	9,175	8,108	6,519
63 Woods Hole Ocngrphic Inst	13,129	12,165 I	11,343	9,445	12,444	10,461 I	9,714	7,290
64 Univ of South Florida	12,458	16,945	24,961	21,257	4,163	10,343	18,910	15,248
65 Univ of Cal Davis	12,364	9,634	7,794	7,124	6,447	5,293	4,149	4,015
66 University of Iowa	12,214	10,805	9,707	8,710	5,402	4,102	4,412	3,833
67 University of Delaware	12,198	12,528	12,251	10,874	4,286	4,561	4,305	4,461
68 Univ of Nebraska-Lincoln	12,141	12,377	9,709	7,253	1,386	1,450	1,337	991
69 Michigan Tech University	11,827	12,326	10,366	8,861	4,568	3,855	3,490	2,483
70 Univ of Missouri Rolla	11,465	10,286	9,207	11,435	3,199	3,197	2,774	2,315
Total, 1st 70 insts.	2,497,119	2,393,243	2,206,449	1,990,439	1,476,871	1,397,657	1,302,156	1,187,388
71 Univ of Missouri Columbia	10,702	9,937	10,125	5,653	2,667	2,167	1,624	1,034
72 Univ of Mass - Amherst	10,479	--	--	--	5,603	--	--	--
73 Univ of South Carolina	10,161	14,260	6,974	3,088	4,805	4,297	2,308	1,298
74 Univ of North Dakota	10,011	8,361	8,271	8,210	9,090	7,740	6,793	6,056
75 West Virginia University	9,812	7,005	5,381	6,894	6,194	3,492	3,264	3,211
76 Brown University	9,707	9,936	7,156	6,382	7,304	7,144	5,704	5,357
77 Oregon State University	9,169	8,226	8,459	5,130	4,411	4,263	5,445	2,902
78 Texas Tech University	8,806	8,902	8,801	8,839	2,325	2,419	2,668	3,432
79 Univ of Ill Chicago	8,795	7,940	5,486	5,939	2,318	2,566	2,335	2,247
80 San Jose State University	8,672	3,114	2,591	2,422	2,453	1,895	1,790	1,879
Total, 1st 80 insts.	2,593,433	2,470,924	2,269,693	2,042,996	1,524,041	1,433,640	1,334,087	1,214,804
81 Kans St U - Ag & App Sci	8,397	6,635	6,186	4,651	2,517	1,615	1,921	1,429
82 Tenn Technological Univ	8,372	8,242	7,832	6,359	920	324	644	267
83 Colorado School of Mines	8,320	8,648	6,097	3,089	3,777	4,227	2,576	1,622
84 Vanderbilt University	8,309	8,554	7,287	5,798	6,193	5,908	5,018	3,793
85 Ohio University	8,294	6,678	5,766	4,611	3,135	2,519	2,332	1,794
86 University of Idaho	8,288	8,031	6,719	6,477	4,304	4,597	4,101	3,755
87 Univ of Tex at Arlington	8,285	8,240	2,849	4,517	1,571	1,355	563	270
88 University of Pittsburgh	8,247	6,514	5,944	6,201	4,132	3,179	2,967	2,910
89 Univ of Ark Fayetteville	7,981	5,710	7,059	5,818	2,105	2,457	2,193	1,787
90 The University of Alabama	7,707	5,996	6,709	5,555	3,197	1,970	2,871	2,514
Total, 1st 90 insts.	2,675,633	2,544,172	2,332,141	2,096,052	1,555,892	1,461,791	1,359,273	1,234,945
91 Yale University	7,700	7,329	6,732	6,052	5,076	4,603	4,652	4,228
92 Washington State Univ	7,623	6,792	6,025	4,305	3,732	2,774	2,037	1,672
93 Duke University	7,515	6,512	6,492	5,407	5,693	4,948	4,899	3,744
94 Mercer University	7,357	7,184	4,154	2,387	6,835	6,261	3,259	1,542
95 Brigham Young University	6,912	5,358	4,718	5,127 I	4,223	3,623	3,313	3,231 I
96 NC Ag & Tech State Univ	6,720	5,753	4,355	3,097	4,154	4,049	3,644	2,470
97 Polytechnic University	6,684	6,683	7,864	8,013	4,140	4,140	5,218	5,661
98 Tulane University	6,682	4,317	2,587	3,119	2,054	1,405	493	578
99 University of Notre Dame	6,641	6,583	4,630	4,035	2,917	2,764	1,928	1,662
100 George Washington Univ	6,637	5,123	5,898	6,039	5,368	3,735	4,715	4,766
Total, 1st 100 insts.	2,746,104	2,605,808	2,385,598	2,143,633	1,600,084	1,500,093	1,393,431	1,264,499
Total, all other sampled insts.	292,361	277,631	253,387	233,007	141,019	125,074	121,838	109,935
Estimated total non-sampled insts.	43,797	23,975	24,163	21,069	13,564	9,734	8,936	8,697

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
I = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-48. R&D expenditures in engineering subfields at universities and colleges: fiscal year 1992

[Dollars in thousands]

Institution ranking	Engineering subfields							
	Total	Aero/ astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgical and materials	Other
Total, all institutions	3,082,262	191,647	262,195	340,636	711,746	456,124	294,297	825,618
1 Johns Hopkins Univ	225,382	22,637	5,158	2,841	69,458	46,091	690	78,507
2 Mass Inst of Technology	140,989	15,551	13,007	13,405	41,174	17,722	14,518	25,592
3 Georgia Institute of Tech	122,215	12,837	3,197	4,228	65,911	15,625	6,564	13,853
4 Pennsylvania State Univ	119,878	1,216	2,346	5,064	2,952	11,972	17,879	78,449
5 Stanford University	107,500	6,221	3,525	7,087	35,069	10,025	3,759	41,814
6 Univ of Texas at Austin	85,430	6,102	7,816	15,564	6,719	14,947	3,131	31,151
7 Texas A & M University	77,462	3,802	12,352	25,144	5,218	9,975	3,413	17,558
8 University of Michigan	64,901	2,482	2,951	7,139	25,094	8,817	5,603	12,815
9 Univ of Cal Berkeley	62,178	58	2,786	15,237	27,427	4,789	3,697	8,184
10 University of Ill Urbana	53,044	1,658	1,736	8,138	10,670	9,507	16,941	4,394
Total, 1st 10 insts.	1,058,959	72,564	54,874	103,847	289,692	149,470	76,195	312,317
11 VA Polytech Inst & St U	49,830	2,883	2,137	3,096	8,138	11,547	4,321	17,708
12 Univ of MD College Park	47,806	6,155	625	1,944	10,571	5,290	2,264	20,957
13 New Mexico State Univ	46,532	25,948	2,981	1,727	11,405	3,155	0	1,316
14 Univ of Wis-Madison	46,312	0	5,054	1,900	8,546	2,226	3,767	24,819
15 N C State Univ at Raleigh	44,797	0	5,804	2,648	11,865	6,416	11,332	6,732
16 Cornell University	43,951	4,357	2,962	3,589	11,574	1,151	4,424	15,894
17 Ohio State University	43,764	1,088	932	1,065	6,158	3,439	3,411	27,671
18 Utah State University	38,155	0	0	2,091	34,182	754	0	1,128
19 Purdue University	37,949	1,884	2,563	4,146	6,973	7,099	3,879	11,405
20 Rensselaer Polytech Inst	37,898	0	3,509	3,830	8,997	10,270	6,477	4,815
Total, 1st 20 insts.	1,495,953	114,879	81,441	129,883	408,101	200,817	116,070	444,762
21 University of Dayton	36,086	7,227	3,196	279	3,782	12,628	7,014	1,960
22 Iowa St U of Sci & Tech	31,512	748	1,318	5,317	2,610	2,524	835	18,160
23 University of Rochester	29,559	0	756	0	1,916	18,735	0	8,152
24 SUNY at Buffalo	28,827	0	1,603	10,785	4,169	8,884	0	3,386
25 Univ of Cal Los Angeles	28,471	0	1,813	2,490	10,548	9,857	2,434	1,329
26 Univ. Of Tennessee System	27,569	2,611	9,518	4,844	1,757	1,106	2,056	5,677
27 Carnegie-Mellon Univ	27,183	0	1,288	1,601	12,177	2,082	3,369	6,666
28 University of New Mexico	26,979	0	2,369	13,635	1,816	586	8,504	69
29 Univ of Southern Cal	26,816	2,809	401	1,408	13,562	375	1,389	6,872
30 University of Minnesota	26,053	1,078	9,416	6,470	3,336	4,177	934	642
Total, 1st 30 insts.	1,785,008	129,352	113,119	176,712	463,774	261,771	142,605	497,675
31 U of Houston	25,305	7,271	3,360	970	1,391	1,995	9,794	524
32 Case Western Reserve Univ	25,066	0	9,344	729	3,140	3,615	4,754	3,484
33 Rutgers the St Univ of NJ	24,726	0	1,972	345	2,661	1,893	14,469	3,386
34 University of Florida	24,476	2,771	1,373	5,495	4,144	1,978	3,272	5,443
35 Clemson University	23,977	0	1,538	4,346	3,223	2,887	0	11,983
36 Univ of Cal Santa Barbara	23,647	0	3,701	0	10,912	1,722	6,301	1,011
37 Lehigh University	23,621	0	3,114	6,693	3,171	3,790	5,542	1,311
38 University of Connecticut	23,024	0	1,310	2,643	2,817	1,457	14,159	638
39 Univ. of Colorado	22,714	5,910	2,337	3,347	9,379	1,355	0	386
40 Louisiana State Univ Sys	22,443	0	3,261	3,436	1,558	974	6,691	6,523
Total, 1st 40 insts.	2,024,007	145,304	144,429	204,716	506,170	283,437	207,587	532,364
41 Arizona State University	21,491	27	1,951	2,512	7,864	4,862	0	4,275
42 Princeton University	21,289	7,875	3,033	3,240	6,714	0	101	326
43 Northwestern University	20,049	0	1,582	2,131	736	1,299	5,055	9,246
44 University of Arizona	19,539	2,108	647	4,272	4,353	0	4,230	3,929
45 California Inst of Tech	19,203	3,342	2,856	586	1,822	905	749	8,943
46 University of Cincinnati	19,056	2,146	1,119	8,859	2,764	2,487	1,631	50
47 University of Virginia	18,988	1,387	1,120	1,151	2,435	3,447	4,709	4,739
48 University of Washington	18,352	1,815	2,210	5,239	3,662	1,589	1,315	2,522
49 Auburn University	18,156	4,914	3,995	3,715	1,498	1,865	700	1,469
50 Mississippi State Univ	18,116	1,945	1,388	195	1,224	425	0	12,939
Total, 1st 50 insts.	2,218,246	170,863	164,330	236,616	539,242	300,316	226,077	580,802

See explanatory information and SOURCE at end of table.

Table B-48. R&D expenditures in engineering subfields at universities and colleges: fiscal year 1992

[Dollars in thousands]

Institution ranking	Engineering subfields							
	Total	Aero/ astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgical and materials	Other
51 Columbia Univ Main Div	17,526	0	3,673	83e	9,080	593	1,081	3,016e
52 N Mex Inst Mining & Tech	16,797	0	2,991	0	78	0	1,440	12,288
53 University of Kentucky	16,601	0	451	298	137	1,399	0	14,316
54 Michigan State University	16,382	0	3	0	6	1,384	0	14,989
55 Colorado State University	15,625	0	2,118	7,223	2,785	1,783	0	1,736
56 University of Utah	14,501	0	1,279	345	837	2,271	1,896	8,073
57 Univ of Pennsylvania	14,469	0	1,522	681	2,040	1,513	6,036	2,677
58 Oklahoma State University	14,335	278	3,011	2,937	734	2,285	0	5,090
59 Drexel University	13,978	0	996	1,474	5,949	2,742	2,195	622
60 University of Oklahoma	13,866	125	7,275	2,131	1,569	1,672	0	1,094
Total, 1st 60 insts.	2,372,326	171,266	187,649	251,788	562,437	315,958	238,525	644,703
61 Stevens Institute of Tech	13,791	0	1,107	408	827	7,880	2,173	1,416
62 Univ Alabama Huntsville	13,206	0	2,347	52	2,009	6,420	109	2,269
63 Woods Hole Ocngrphic Inst	13,129	838l	1,011l	1,033l	3,381l	2,615l	0l	4,151l
64 Univ of South Florida	12,458	0	256	4,450	7,290	143	0	319
65 Univ of Cal Davis	12,364	0	642	3,235	3,038	3,425	0	2,024
66 University of Iowa	12,214	0	971	3,987	919	5,483	0	874
67 University of Delaware	12,198	0	5,175	1,157	2,211	204	3,328	123
68 Univ of Nebraska-Lincoln	12,141	0	503	2,733	1,697	1,630	0	5,578
69 Michigan Tech University	11,827	0	1,953	1,827	512	2,844	3,395	1,496
70 Univ of Missouri Rolla	11,465	148	414	995	799	1,872	6,170	1,069
Total, 1st 70 insts.	2,497,119	172,350	202,028	271,645	585,120	348,254	253,700	664,022
71 Univ of Missouri Columbia	10,702	0	890	1,011	758	1,046	0	6,999
72 Univ of Mass - Amherst	10,479	0	1,881	1,172	4,352	1,896	0	1,178
73 Univ of South Carolina	10,161	0	1,005	494	1,250	7,327	8	87
74 Univ of North Dakota	10,011	0	3	17	0	1	2	9,988
75 West Virginia University	9,812	0	176	1,766	803	4,127	857	2,083
76 Brown University	9,707	693l	717l	753l	2,390l	2,113l	0l	3,041l
77 Oregon State University	9,169	0	280	3,457	1,509	1,869	0	2,054
78 Texas Tech University	8,806	0	666	1,620	2,091	1,142	2,236	1,051
79 Univ of Ill Chicago	8,795	0	498	1,620	3,637	1,933	0	1,207
80 San Jose State University	8,672	197	138	181	3,081	429	454	4,192
Total, 1st 80 insts.	2,593,433	173,240	208,282	283,726	604,889	370,137	257,257	695,902
81 Kans St U - Ag & App Sci	8,397	0	406	746	497	613	0	6,135
82 Tenn Technological Univ	8,372	0	27	2,836	2,432	2,863	0	214
83 Colorado School of Mines	8,320	0	3,794	0	0	0	4,247	279
84 Vanderbilt University	8,309	0	374	1,164	2,177	1,380	2,402	812
85 Ohio University	8,294	0	2,084	753	4,180	903	394	0
86 University of Idaho	8,288	0	791	384	2,998	1,020	1,629	1,466
87 Univ of Tex at Arlington	8,285	404	0	380	3,317	666	0	3,508
88 University of Pittsburgh	8,247	0	2,323	887	929	509	2,363	1,246
89 Univ of Ark Fayetteville	7,981	0	1,292	668	1,117	865	0	4,039
90 The University of Alabama	7,707	1,678	1,008	429	735	1,173	2,168	526
Total, 1st 90 insts.	2,675,633	175,322	220,361	291,963	623,269	380,129	270,440	714,149
91 Yale University	7,700	0	1,625	0	1,971	2,454	0	1,650
92 Washington State Univ	7,623	0	628	1,755	1,853	1,754	175	1,458
93 Duke University	7,515	0	0	622	911	1,632	0	4,350
94 Mercer University	7,357	1,046	0	0	1,424	2,699	96	2,192
95 Brigham Young University	6,912	0	3,774	775	1,010	408	0	947
96 NC Ag & Tech State Univ	6,720	0	175	334	1,306	3,574	0	1,331
97 Polytechnic University	6,684	62	662	134	5,082	111	529	224
98 Tulane University	6,682	0	1,934	892	963	1,540	0	1,353
99 University of Notre Dame	6,641	947l	2,880l	1,128l	848l	0l	303l	535l
100 George Washington Univ	6,637	1,414	0	7	1,212	62	94	3,848
Total, 1st 100 insts.	2,748,104	178,791	231,939	297,610	639,819	394,281	271,637	732,047
Total, all other sampled insts.	292,381	11,029	29,467	38,732	59,195	84,286	21,263	78,380
Estimated total non-sampled insts.	43,797	1,827	759	4,294	12,732	7,568	1,387	15,191

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
l = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-49. Federally financed R&D expenditures in engineering subfields at universities and colleges: fiscal year 1992

[Dollars in thousands]

Institution ranking	Engineering subfields							
	Total	Aero/ astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgical and materials	Other
Total, all institutions	1,754,667	146,129	126,462	143,982	455,172	272,173	142,457	468,293
1 Johns Hopkins Univ	220,774	22,221	4,650	1,396	68,866	45,724	476	77,441
2 Mass Inst of Technology	93,025	11,778	8,289	9,713	29,794	9,687	9,805	13,959
3 Stanford University	79,342	4,750	2,557	5,144	24,805	7,289	1,888	32,909
4 Pennsylvania State Univ	77,248	827	1,052	1,129	1,673	5,844	6,534	60,189
5 Georgia Institute of Tech	68,676	7,213	1,796	2,376	37,036	8,780	3,688	7,785
6 Univ of Texas at Austin	48,462	4,179	3,610	3,529	2,647	10,874	2,050	21,573
7 New Mexico State Univ	39,864	23,389	2,693	951	8,864	2,791	0	1,176
8 University of Michigan	36,413	1,182	1,860	3,998	16,243	3,653	3,649	5,828
9 Utah State University	31,565	0	0	902	29,757	376	0	530
10 University of Dayton	30,744	6,743	2,852	233	3,461	9,552	6,153	1,750
Total, 1st 10 insts.	726,113	82,282	29,359	29,371	223,148	104,570	34,243	223,140
11 Univ of Cal Berkeley	29,710	58	1,047	2,800	16,713	2,993	2,628	3,471
12 University of Ill Urbana	28,768	1,064	905	4,680	7,254	3,770	8,882	2,213
13 Univ of Wis-Madison	28,565	0	2,338	789	5,262	987	2,433	16,756
14 Cornell University	27,932	2,999	1,720	1,420	7,048	868	2,996	10,881
15 University of Rochester	25,786	0	288	0	1,492	17,491	0	6,515
16 VA Polytech Inst & St U	25,142	2,049	758	1,147	2,951	5,270	1,439	11,528
17 Univ of MD College Park	22,857	3,357	45	666	5,075	2,258	917	10,539
18 Purdue University	22,140	1,346	1,325	1,543	4,907	3,841	3,449	5,729
19 Univ of Southern Cal	20,511	2,505	220	750	11,189	213	1,163	4,471
20 Univ of Cal Los Angeles	20,499	0	828	1,278	7,355	8,836	1,603	599
Total, 1st 20 insts.	978,023	95,660	38,833	44,444	292,394	151,097	59,753	295,842
21 Univ of Cal Santa Barbara	19,643	0	2,956	0	8,695	1,489	5,605	898
22 Rensselaer Polytech Inst	18,149	0	1,681	1,834	4,309	4,917	3,102	2,306
23 N C State Univ at Raleigh	18,135	0	2,071	837	5,010	3,856	4,844	1,517
24 Texas A & M University	17,648	2,002	1,971	2,634	1,836	2,206	76	6,923
25 University of New Mexico	17,494	0	1,327	10,830	276	195	4,866	0
26 California Inst of Tech	16,783	2,965	2,205	550	1,576	785	678	8,024
27 Ohio State University	16,395	722	623	570	3,649	2,441	1,921	6,469
28 Case Western Reserve Univ	15,877	0	4,827	649	1,691	2,971	3,510	2,229
29 Univ. Of Tennessee System	15,725	382	8,434	1,825	1,219	680	596	2,589
30 Carnegie-Mellon Univ	14,832	0	949	969	6,430	1,338	1,857	3,289
Total, 1st 30 insts.	1,148,704	101,731	65,877	65,142	327,085	171,975	86,808	330,086
31 Iowa St U of Sci & Tech	14,732	507	398	2,505	625	837	434	9,426
32 Univ. of Colorado	14,160	4,240	1,305	2,209	5,366	1,025	0	15
33 Columbia Univ Main Div	13,873	0	1,520	83	7,968	531	891	2,880
34 Mississippi State Univ	13,499	214	916	137	1,005	330	0	10,897
35 Lehigh University	12,919	0	391	5,181	2,246	1,546	3,225	330
36 University of Minnesota	12,894	807	6,194	1,457	2,016	1,870	493	57
37 Woods Hole Ocngrphic Inst	12,444	8901	9701	9811	3,2471	2,4111	01	3,9451
38 Northwestern University	11,812	0	1,030	1,505	552	541	3,812	4,372
39 University of Virginia	11,675	1,241	789	805	1,555	2,008	2,942	2,335
40 University of Florida	11,261	1,484	825	725	1,895	1,447	2,283	2,602
Total, 1st 40 insts.	1,277,973	111,114	80,215	80,730	353,560	184,521	100,888	366,945
41 University of Cincinnati	11,152	1,719	381	5,891	1,737	632	748	44
42 Princeton University	10,999	5,788	1,280	1,716	2,201	0	0	4
43 U of [illegible]	10,821	5,823	1,339	500	543	1,129	1,335	152
44 University of Washington	10,061	1,519	971	2,399	1,872	1,129	1,134	1,037
45 Colorado State University	9,945	0	1,288	5,594	1,338	980	0	785
46 Univ of Pennsylvania	9,895	0	948	229	1,079	1,016	4,499	2,124
47 Univ Alabama Huntsville	9,255	0	2,110	2	1,276	4,303	52	1,512
48 Univ of North Dakota	9,090	0	0	17	0	0	0	9,073
49 University of Arizona	8,840	1,568	297	2,807	635	0	2,022	1,511
50 University of Utah	8,315	0	293	101	482	1,694	1,224	4,521
Total, 1st 50 insts.	1,376,336	127,531	89,102	99,986	364,723	195,384	111,902	387,708

See explanatory information and SOURCE at end of table.

Table B-49. Federally financed R&D expenditures in engineering subfields at universities and colleges: fiscal year 1992

[Dollars in thousands]

Institution ranking	Engineering subfields							
	Total	Aero/ astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgical and materials	Other
51 SUNY at Buffalo	7,930	0	651	5,518	636	1,020	0	105
52 Rutgers the St Univ of NJ	7,836	0	597	250	798	1,326	3,882	983
53 Brown University	7,304	523i	563i	577i	1,913i	1,416i	0i	2,312i
54 Mercer University	6,835	1,046	0	0	1,424	2,578	96	1,691
55 Univ of Cal Davis	6,447	0	458	905	1,631	2,065	0	1,388
56 Drexel University	6,445	0	404	699	3,306	1,043	770	223
57 Auburn University	6,366	3,448	686	657	540	954	58	23
58 Clemson University	6,327	0	447	1,103	833	1,251	0	2,693
59 Louisiana State Univ Sys	6,255	0	812	1,687	248	185	2,436	887
60 West Virginia University	6,194	0	132	925	608	2,885	389	1,255
Total, 1st 60 insts.	1,444,275	132,548	93,852	112,307	376,660	210,107	119,533	399,268
61 Vanderbilt University	6,193	0	98	833	1,216	1,010	2,352	684
62 University of Kentucky	6,186	0	335	182	39	977	0	4,655
63 US Naval Postgrad School	6,175	2,162	0	0	2,100	1,585	328	0
64 Arizona State University	5,915	0	879	622	2,104	1,991	0	319
65 Duke University	5,893	0	0	484	336	1,332	0	3,539
66 Michigan State University	5,618	0	0	0	0	0	0	5,618
67 Univ of Mass - Amherst	5,603	0	1,052	393	3,233	819	0	106
68 University of Iowa	5,402	0	403	1,703	656	2,359	0	281
69 George Washington Univ	5,368	1,381	0	0	868	31	90	2,998
70 Yale University	5,076	0	1,229	0	852	1,928	0	1,067
Total, 1st 70 insts.	1,501,506	136,091	97,848	116,524	386,066	222,139	122,303	418,535
71 Stevens Institute of Tech	4,937	0	451	0	410	3,342	480	254
72 Univ of South Carolina	4,805	0	596	394	509	3,306	0	0
73 Michigan Tech University	4,568	0	310	840	217	1,622	1,026	553
74 Oklahoma State University	4,524	20	1,877	966	260	265	0	1,136
75 N Mex Inst Mining & Tech	4,488	0	809	0	40	0	419	3,220
76 Oregon State University	4,411	0	191	1,913	669	771	0	867
77 Northeastern University	4,405	0	225	110	3,710	274	0	86
78 University of Idaho	4,304	0	234	149	2,533	82	715	591
79 University of Delaware	4,286	0	1,400	364	1,454	8	1,042	18
80 Brigham Young University	4,223	0	2,736	508	451	78	0	450
Total, 1st 80 insts.	1,546,457	136,111	106,677	121,768	398,319	231,887	125,985	425,710
81 Dartmouth College	4,172	300i	321i	329i	1,091i	809i	0i	1,322i
82 Univ of South Florida	4,163	0	49	291	3,721	93	0	9
83 NC Ag & Tech State Univ	4,154	0	70	56	869	2,260	0	899
84 Boston University	4,148	498	0	0	1,016	126	0	2,508
85 Polytechnic University	4,140	50	180	60	3,200	100	450	100
86 University of Pittsburgh	4,132	0	1,479	482	581	317	1,187	86
87 Univ of Cal San Diego	3,960	0	0	16	0	3,700	0	244
88 University of Oklahoma	3,857	101	2,393	451	354	273	0	285
89 Colorado School of Mines	3,777	0	1,727	0	0	0	1,916	134
90 Washington State Univ	3,732	0	330	658	886	1,330	86	442
Total, 1st 90 insts.	1,586,692	137,060	113,226	124,111	410,037	240,895	129,824	431,739
91 Howard University	3,605	0	131	175	1,400	457	0	1,442
92 Univ of Nevada - Reno	3,580	67	0	1,408	73	0	695	1,337
93 University of Connecticut	3,488	0	87	282	1,087	343	1,709	0
94 George Mason University	3,278	0	0	0	789	0	0	2,489
95 Montana State University	3,270	0	118	166	120	240	0	2,626
96 Univ of Missouri Rolla	3,199	74	136	217	234	572	1,753	211
97 The University of Alabama	3,197	1,319	330	84	116	182	953	213
98 Ohio University	3,135	0	46	10	2,938	141	0	0
99 Illinois Inst of Tech	3,062	0	780	225	178	1,104	166	609
100 Old Dominion University	3,040	0	0	340	882	1,783	0	35
Total, 1st 100 insts.	1,619,546	138,520	114,856	126,998	417,854	245,717	134,900	440,701
Total, all other sampled insts.	121,557	6,226	11,600	16,444	29,776	22,929	7,223	27,359
Estimated total non-sampled insts.	13,584	1,383	6	540	7,542	3,527	334	233

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-50. R&D expenditures in the physical sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Physical sciences total				1992 subfields			
	1992	1991	1990	1989	Astronomy	Chemistry	Physics	Other
Total, all institutions	2,057,842	1,945,057	1,809,339	1,648,912	231,945	701,216	915,347	209,335
1 Johns Hopkins Univ	130,059	118,842	93,344	85,843	31,665	5,356	83,658	9,380
2 Mass Inst of Technology	95,935	101,286	98,119	89,915	10,122	13,999	71,814	0
3 Stanford University	75,680	58,550	54,078	50,733	0	10,846	5,089	59,745
4 Univ of MD College Park	66,810	69,447	56,256	46,904	5,628	9,991	27,585	23,606
5 Univ of Cal Berkeley	61,408	55,736	50,711	44,998	8,222	13,835	39,351	0
6 University of Arizona	59,235	64,837	61,723	49,968	38,090	6,030	14,595	520
7 Univ of Texas at Austin	58,507	59,024	40,985	35,845	8,730	16,021	17,529	16,227
8 California Inst of Tech	47,840	47,728	42,034	39,377	9,381	12,647	25,812	0
9 Univ of Cal San Diego	44,711	41,115	30,989	24,540	21,143	9,076	12,675	1,817
10 Cornell University	44,587	45,572	44,887	43,228	5,227	10,550	26,089	2,721
Total, 1st 10 insts.	684,772	662,137	573,126	511,351	138,208	108,351	324,197	114,016
11 University of Ill Urbana	39,935	39,511	37,646	23,307	1,634	9,439	11,382	17,480
12 Univ of Wis-Madison	35,224	32,841	29,538	27,197	4,607	9,804	15,446	5,367
13 Indiana University	29,730	24,147	22,532	22,059	1,711	8,853	19,166	0
14 University of Chicago	27,867	25,171	26,088	24,329	4,493	4,669	0	18,705
15 Harvard University	27,740	25,868	28,340	25,713	3,398	14,103	10,207	32
16 Princeton University	25,628	23,478	22,819	20,191	4,630	8,557	12,441	0
17 Univ of Cal Los Angeles	25,369	22,407	23,136	21,764	1,452	12,137	11,780	0
18 Univ. of Colorado	24,521	23,171	21,438	21,124	7,934	6,895	9,531	161
19 University of Michigan	23,872	21,419	15,329	15,747	606	5,970	15,988	1,308
20 Michigan State University	23,511	22,015	20,898	21,121	0	3,526	19,985	0
Total, 1st 20 insts.	968,169	922,165	820,890	733,903	168,673	192,304	450,123	157,069
21 Florida State University	23,119	22,454	25,017	21,410	0	3,655	12,684	6,780
22 Univ of Hawaii-Manoa	22,477	19,762	17,953	17,090	18,268	1,718	2,491	0
23 University of Iowa	20,949	18,778	17,498	13,114	1,653	3,627	14,879	790
24 SUNY at Stony Brook	20,580	21,466	20,878	18,224	1,242	4,691	14,186	461
25 Rutgers the St Univ of NJ	20,500	18,379	17,273	16,480	0	8,263	12,237	0
26 Yale University	19,707	18,737	15,391	15,059	1,358	7,974	10,319	56
27 Pennsylvania State Univ	18,737	16,158	16,625	14,687	2,452	11,719	3,639	927
28 Univ of Pennsylvania	18,434	18,260	15,494	15,004	74	9,812	8,548	0
29 Georgia Institute of Tech	18,392	14,422	15,314	20,753	861	9,656	7,573	302
30 University of Washington	17,623	15,182	15,333	13,381	1,976	6,538	9,109	0
Total, 1st 30 insts.	1,168,687	1,105,763	997,666	899,105	196,557	259,957	545,788	166,385
31 Texas A & M University	16,905	17,230	17,538	19,721	0	7,903	7,853	1,149
32 Ohio State University	16,772	14,618	13,142	12,222	619	8,299	7,854	0
33 Univ of Cal Santa Cruz	16,209	14,582	12,887	12,234	8,617	2,338	4,219	1,035
34 University of Minnesota	16,190	16,143	16,577	14,423	1,107	5,962	8,898	243
35 Columbia Univ Main Div	16,152	16,929	16,361	13,718	2,643	5,986	1,411	6,113
36 Univ of Mass - Amherst	16,122	--	--	--	0	9,583	5,073	1,466
37 Purdue University	15,814	15,134	14,467	13,665	0	8,879	6,935	0
38 Univ of Cal Santa Barbara	15,649	15,089	15,216	14,866	0	4,327	10,016	1,306
39 Arizona State University	15,546	15,308	14,490	12,340	238	6,755	4,662	3,891
40 Univ of Cal Irvine	14,095	13,043	12,300	11,425	0	6,237	7,635	223
Total, 1st 40 insts.	1,328,141	1,245,819	1,130,644	1,023,719	209,781	326,206	610,344	181,811
41 University of Rochester	13,472	12,045	13,329	11,307	780	5,871	6,821	0
42 Univ of Alaska Fairbanks	13,380	12,818	13,781	12,878	4,500	1,180	7,174	526
43 University of Virginia	12,510	11,478	11,212	10,528	828	5,225	6,457	0
44 Univ. Of Tennessee System	11,957	11,398	10,736	11,143	0	4,730	7,227	0
45 University of Pittsburgh	11,932	10,852	12,904	10,952	482	5,876	4,768	806
46 University of Notre Dame	11,706	10,306	10,735	11,041	0	7,274	4,432	0
47 Northwestern University	11,692	11,847	11,770	11,894	0	7,651	3,999	42
48 University of Oregon	11,631	11,004	12,114	9,589	0	6,076	5,455	0
49 Univ Alabama Huntsville	11,444	9,171	11,024	9,193	0	5,157	6,287	0
50 Duke University	11,368	10,690	9,095	7,864	0	3,241	8,117	0
Total, 1st 50 insts.	1,449,123	1,367,426	1,247,314	1,130,099	216,371	378,466	671,081	183,185

See explanatory information and SOURCE at end of table.

Table B-50. R&D expenditures in the physical sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Physical sciences total				1992 subfields			
	1992	1991	1990	1989	Astronomy	Chemistry	Physics	Other
51 University of Utah	11,180	8,859	8,115	8,633	0	6,697	4,483	0
52 Wayne State University	10,917	8,896	7,900	7,230	0	7,756	3,161	0
53 University of Florida	10,860	10,246	11,804	11,653	656	5,847	4,357	0
54 Louisiana State Univ Sys	10,795	9,912	9,164	8,781	0	3,959	6,092	744
55 Boston University	10,394	9,359	8,956	6,453	692	1,383	8,339	0
56 VA Polytech Inst & St U	9,403	9,562	9,710	8,378	0	7,178	2,049	176
57 Rice University	9,191	9,274	8,470	7,449	3,064	3,327	2,800	0
58 Univ of Cal Davis	8,670	7,471	7,851	7,346	0	3,171	5,499	0
59 Kent State University	8,320	4,681	3,375	2,656	0	440	1,250	6,630
60 U of Houston	8,291	7,944	19,290	16,033	0	4,320	3,971	0
Total, 1st 60 insts.	1,547,144	1,443,630	1,341,949	1,214,710	220,783	422,544	713,082	190,735
61 Univ of Southern Cal	8,200	7,349	7,463	6,107	66	6,337	1,797	0
62 Univ of NC at Chapel Hill	7,992	6,965	6,481	6,508	0	6,306	1,686	0
63 Brown University	7,964	6,907	6,162	5,440	0	3,424	4,540	0
64 Univ of Central Florida	7,909	10,765	7,693	5,234	7,437	322	150	0
65 University of Delaware	7,906	7,996	6,869	6,397	0	3,217	1,547	3,142
66 Univ of Ill Chicago	7,605	6,783	8,204	7,005	0	3,666	3,939	0
67 SUNY at Buffalo	7,503	7,432	6,952	6,413	0	4,932	1,783	788
68 University of Georgia	7,501	8,061	6,708	6,239	0	5,042	2,459	0
69 University of Kansas	7,354	6,648	6,635	5,710	0	5,254	1,509	591
70 Univ of Nebraska-Lincoln	7,306	5,135	4,642	4,861	133	4,698	2,475	0
Total, 1st 70 insts.	1,624,384	1,517,671	1,409,756	1,274,624	228,419	465,742	734,967	195,256
71 University of Akron	7,289	6,357	4,748	4,257	0	1,848	180	5,461
72 Rensselaer Polytech Inst	7,162	5,256	6,097	5,743	0	5,214	1,948	0
73 Univ of Texas at Dallas	7,153	5,058	5,314	5,738	0	1,251	5,902	0
74 Rockefeller University	7,145	9,031	11,661	9,518	0	5,027	2,118	0
75 Washington University	7,136	6,217	6,554	6,475	0	3,525	3,611	0
76 N C State Univ at Raleigh	6,951	7,091	5,611	5,488	0	1,757	5,194	0
77 University of Oklahoma	6,807	5,690	5,030	5,276	0	4,641	2,166	0
78 Utah State University	6,767	5,030	4,431	5,662	0	1,591	5,176	0
79 Vanderbilt University	6,663	6,646	6,681	7,087	0	1,902	4,761	0
80 Emory University	6,574	5,407	4,631	4,038	0	5,646	928	0
Total, 1st 80 insts.	1,694,031	1,579,454	1,470,514	1,333,886	228,419	497,944	766,951	200,717
81 Carnegie-Mellon Univ	6,484	6,760	7,203	7,169	0	2,489	3,357	638
82 Univ of South Carolina	6,390	5,282	5,710	6,376	0	4,481	1,906	3
83 Colorado State University	6,241	5,220	4,658	4,832	0	4,827	1,414	0
84 Oklahoma State University	5,834	5,102	4,837	3,811	0	1,870	3,560	404
85 Georgetown University	5,426	5,253	3,998	4,201	0	5,350	4	72
86 Syracuse University	5,378	5,169	5,966	5,039	0	2,395	2,971	12
87 CUNY City College	5,367	5,879	5,423	5,559	0	2,756	2,611	0
88 Lehigh University	5,357	4,995	5,238	5,585	0	3,599	1,758	0
89 The University of Alabama	5,326	4,516	3,910	2,625	92	2,291	2,860	93
90 Univ of Missouri Columbia	5,101	5,123	3,545	1,713	0	1,844	3,257	0
Total, 1st 90 insts.	1,750,935	1,632,753	1,521,004	1,380,796	228,511	529,846	790,639	201,939
91 University of Mississippi	5,034	5,899	4,091	1,006	0	602	4,432	0
92 University of Cincinnati	4,991	5,879	4,669	5,643	0	3,747	1,244	0
93 Case Western Reserve Univ	4,828	5,146	10,022e	10,164	156	2,856	1,816	0
94 Oregon State University	4,762	3,747	3,635	4,670	0	3,541	1,213	8
95 Clemson University	4,757	4,097	3,567	2,852	0	2,271	2,486	0
96 Catholic Univ of America	4,751	4,362	4,306	3,972	0	660	1,085	2,806
97 Iowa St U of Sci & Tech	4,623	6,475	5,396	4,276	69	2,720	1,834	0
98 Auburn University	4,408	3,900	3,778	1,713	0	2,797	1,611	0
99 New York University	4,400	4,535	3,110	3,056	0	2,399	2,001	0
100 Texas Tech University	4,251	3,276	3,147	3,197	0	3,228	1,025	0
Total, 1st 100 insts.	1,797,740	1,682,069	1,566,724	1,421,345	228,736	554,885	809,366	204,753
Total, all other sampled insts.	232,260	237,431	221,860	209,268	3,206	128,341	96,553	4,160
Estimated total non-sampled insts.	27,822	25,557	20,735	18,299	3	17,990	9,428	402

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-51. Federally financed R&D expenditures in the physical sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Physical sciences total				1992 subfields			
	1992	1991	1990	1989	Astronomy	Chemistry	Physics	Other
Total, all institutions	1,476,443	1,382,611	1,313,785	1,197,148	152,651	476,266	701,423	146,104
1 Johns Hopkins Univ	127,434	117,022	91,640	84,556	30,228	4,992	82,834	9,380
2 Mass Inst of Technology	79,456	84,110	82,686	74,896	3,778	12,384	63,294	0
3 Stanford University	60,441	50,320	50,717	46,501	0	8,414	4,138	47,889
4 Univ of Cal Berkeley	52,529	47,227	42,182	37,355	4,721	12,008	35,800	0
5 California Inst of Tech	43,122	43,033	37,172	35,366	7,553	10,970	24,599	0
6 Univ of Texas at Austin	39,288	35,841	22,478	20,081	4,851	8,700	11,891	13,846
7 Univ of Cal San Diego	39,168	36,411	26,689	21,204	17,954	7,799	11,647	1,768
8 Cornell University	36,739	35,556	35,290	33,105	2,899	8,852	22,939	2,049
9 Univ of MD College Park	34,588	35,925	30,835	25,029	2,828	4,687	13,609	13,464
10 University of Ill Urbana	32,063	31,456	31,290	18,085	1,217	6,804	9,436	14,606
Total, 1st 10 insts.	544,828	516,901	450,981	396,178	76,029	85,610	280,187	103,002
11 University of Arizona	28,044	33,633	32,929	23,882	16,537	3,969	7,099	439
12 Univ of Wis-Madison	26,405	24,321	22,378	20,691	3,526	6,929	12,867	3,083
13 University of Chicago	24,995	23,279	23,941	22,261	4,152	4,235	0	16,608
14 Harvard University	23,826	22,080	24,954	22,932	3,265	12,387	8,145	29
15 Univ of Cal Los Angeles	22,661	20,161	21,485	19,521	1,258	10,841	10,562	0
16 Indiana University	20,388	18,712	17,818	18,212	327	6,157	13,904	0
17 Princeton University	18,933	17,249	16,286	15,037	3,008	5,952	9,973	0
18 Univ. of Colorado	18,533	17,886	18,187	17,416	4,995	5,494	7,897	147
19 Yale University	16,856	16,599	13,814	13,283	981	6,752	9,123	0
20 Univ of Hawaii-Manoa	16,647	14,637	12,905	12,878	13,120	1,301	2,226	0
Total, 1st 20 insts.	762,116	725,458	655,680	582,291	127,198	149,627	362,003	123,288
21 Michigan State University	16,536	15,337	14,485	14,203	0	2,274	14,262	0
22 University of Iowa	16,512	14,983	14,360	11,033	1,375	2,448	12,378	311
23 Columbia Univ Main Div	15,540	15,341	15,497	13,152	2,841	5,785	1,411	5,703
24 Univ of Pennsylvania	15,519	15,434	14,495	13,675	43	8,059	7,417	0
25 University of Washington	14,210	12,098	12,548	11,169	1,506	4,011	8,693	0
26 SUNY at Stony Brook	13,900	14,839	15,165	12,660	1,008	3,129	9,741	22
27 Univ of Cal Santa Barbara	13,769	13,422	13,336	13,249	0	3,835	8,940	994
28 University of Michigan	13,028	13,087	10,987	11,186	557	4,138	7,853	480
29 University of Minnesota	12,795	12,595	12,563	11,084	921	5,082	6,812	0
30 Univ of Cal Irvine	12,759	12,106	11,110	10,613	0	5,682	6,904	173
Total, 1st 30 insts.	906,684	864,680	790,226	704,295	135,249	194,050	446,414	130,971
31 Florida State University	12,602	12,859	16,150	11,254	0	1,928	8,009	2,665
32 Ohio State University	12,590	9,217	8,130	8,188	509	6,300	5,761	0
33 University of Rochester	12,089	11,243	12,328	10,424	617	5,402	6,050	0
34 Purdue University	11,876	11,732	10,897	10,536	0	6,909	4,967	0
35 Pennsylvania State Univ	10,991	10,095	11,153	10,202	1,953	6,972	1,998	68
36 Rutgers the St Univ of NJ	10,687	9,458	9,765	10,164	0	5,993	4,694	0
37 Georgia Institute of Tech	10,335	8,281	8,635	11,650	484	5,426	4,255	170
38 Univ Alabama Huntsville	9,925	7,724	9,339	7,282	0	4,591	5,334	0
39 University of Notre Dame	9,812	8,643	8,904	9,376	0	6,582	3,230	0
40 University of Pittsburgh	9,792	8,527	10,141	8,547	417	4,959	3,727	689
Total, 1st 40 insts.	1,017,363	982,459	895,668	801,918	139,229	249,112	494,459	134,563
41 University of Virginia	9,644	8,829	8,134	7,722	698	4,191	4,757	0
42 Duke University	9,629	9,007	7,344	6,555	0	2,262	7,367	0
43 Texas A & M University	9,494	8,616	8,021	8,863	0	4,187	5,117	190
44 Univ of Mass - Amherst	9,217	--	--	--	0	5,522	3,695	0
45 University of Utah	8,976	6,982	6,099	6,124	0	5,225	3,751	0
46 Northwestern University	8,755	8,748	9,357	9,029	0	5,372	3,383	0
47 Arizona State University	8,651	7,056	6,697	7,169	6	4,414	3,335	896
48 Boston University	8,634	8,253	8,314	6,179	380	1,075	7,179	0
49 Univ of Alaska Fairbanks	7,942	8,540	7,950	7,298	2,482	384	5,002	124
50 University of Oregon	7,788	7,952	8,895	7,244	0	4,411	3,377	0
Total, 1st 50 insts.	1,106,093	1,036,442	966,479	868,101	142,773	286,125	541,422	135,773

See explanatory information and SOURCE at end of table.

Table B-51. Federally financed R&D expenditures in the physical sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Physical sciences total				1992 subfields			
	1992	1991	1990	1989	Astronomy	Chemistry	Physics	Other
51 Univ of Cal Santa Cruz	7,664	6,507	5,810	5,694	1,834	1,956	3,272	602
52 Univ of Southern Cal	7,570	7,168	7,039	5,587	47	5,826	1,697	0
53 Univ. Of Tennessee System	7,499	6,284	6,408	6,292	0	3,171	4,328	0
54 Univ of Cal Davis	7,367	6,500	6,909	6,603	0	2,621	4,746	0
55 Rice University	7,234	7,199	6,640	5,839	2,832	2,114	2,288	0
56 Univ of NC at Chapel Hill	6,369	5,840	5,400	5,479	0	5,281	1,088	0
57 Washington University	5,985	5,195	5,231	5,625	0	2,865	3,120	0
58 Vanderbilt University	5,695	5,846	6,068	6,022	0	1,703	3,992	0
59 University of Florida	5,634	5,790	7,068	6,539	476	2,895	2,263	0
60 Emory University	5,551	4,163	3,872	3,135	0	4,752	799	0
Total, 1st 60 insts.	1,172,661	1,096,934	1,026,924	924,916	147,982	319,309	569,015	136,375
61 Louisiana State Univ Sys	5,495	4,758	4,912	4,744	0	1,855	3,414	226
62 Univ of Texas at Dallas	5,485	3,039	3,718	4,343	0	573	4,892	0
63 Univ of Ill Chicago	5,252	3,907	5,607	4,880	0	2,441	2,811	0
64 CUNY City College	5,075	5,444	4,905	5,001	0	2,755	2,320	0
65 Carnegie-Mellon Univ	5,033	5,513	5,944	6,015	0	1,989	3,000	44
66 University of Delaware	4,985	5,205	4,325	3,758	0	1,874	1,020	2,091
67 Brown University	4,983	4,480	5,355	4,817	0	2,095	2,888	0
68 Utah State University	4,926	3,033	3,039	3,652	0	502	4,424	0
69 Colorado State University	4,807	3,950	3,735	3,983	0	3,794	1,013	0
70 SUNY at Buffalo	4,580	4,332	4,129	3,681	0	3,018	1,162	400
Total, 1st 70 insts.	1,223,242	1,140,605	1,072,593	969,790	147,982	340,205	595,939	139,136
71 Rockefeller University	4,445	4,149	5,365	4,477	0	3,295	1,150	0
72 U of Houston	4,234	4,466	9,692	7,928	0	1,895	2,339	0
73 VA Polytech Inst & St U	4,176	4,480	4,648	4,084	0	2,950	1,226	0
74 Georgetown University	4,173	4,148	3,212	3,322	0	4,110	3	60
75 University of Mississippi	4,149	4,966	3,642	845	0	573	3,576	0
76 Univ of Nebraska-Lincoln	4,142	3,189	3,008	3,508	118	2,931	1,093	0
77 Univ of Cal Riverside	3,770	4,068	3,848	3,866	0	2,007	1,763	0
78 Syracuse University	3,724	3,732	4,204	3,312	0	1,444	2,280	0
79 New York University	3,708	3,963	2,745	2,784	0	1,887	1,821	0
80 N C State Univ at Raleigh	3,676	3,092	3,797	2,616	0	853	2,823	0
Total, 1st 80 insts.	1,263,439	1,180,856	1,116,754	1,006,510	148,080	362,150	614,013	139,196
81 Univ of South Carolina	3,634	3,438	3,936	3,674	0	2,728	906	0
82 Rensselaer Polytech Inst	3,430	2,452	2,966	2,833	0	2,497	933	0
83 Oregon State University	3,375	2,579	2,183	2,608	0	2,424	951	0
84 Case Western Reserve Univ	3,367	3,735	5,807	6,932	139	1,821	1,407	0
85 Kans St U - Ag & App Sci	3,337	2,766	2,857	3,297	0	1,259	2,078	0
86 Kent State University	3,291	2,521	1,861	1,297	0	332	849	2,110
87 University of Cincinnati	3,237	3,235	3,007	3,301	0	2,402	835	0
88 Catholic Univ of America	3,223	3,639	3,906	3,640	0	830	1,052	1,341
89 Lehigh University	3,217	2,605	2,744	2,802	0	1,880	1,337	0
90 Univ of Sthrn Mississippi	3,163	5,462	2,880	2,300	0	3,119	44	0
Total, 1st 90 insts.	1,296,713	1,213,288	1,148,901	1,039,194	148,219	381,442	624,405	142,647
91 Clark Atlanta University	3,115	2,588	2,982I	2,728I	0	1,976	1,139	0
92 University of Georgia	3,050	3,184	2,492	2,654	0	2,095	955	0
93 Wayne State University	3,036	1,949	2,304	3,583	0	2,341	695	0
94 University of Kansas	3,032	2,559	2,788	2,457	0	1,877	770	385
95 Alabama A & M University	3,013	3,210	2,716	1,984	0	91	2,862	60
96 College of William & Mary	2,878	2,444	2,135	1,818	0	604	2,274	0
97 Northeastern University	2,802	2,209I	2,264	2,606	0	990	1,812	0
98 Univ of Mass - Lowell	2,789	2,366	1,302	1,510	0	936	1,853	0
99 University of Denver	2,774	2,610I	2,417	2,246	0	1,090	1,684	0
100 Washington State Univ	2,741	1,737	1,849	2,194	0	1,787	954	0
Total, 1st 100 insts.	1,325,943	1,238,144	1,172,130	1,062,974	148,219	395,229	639,403	143,092
Total, all other sampled insts.	134,826	131,780	131,297	124,331	4,432	71,497	55,996	2,902
Estimated total non-sampled insts.	15,674	12,687	10,358	9,843	0	9,540	6,025	110

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
I = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-52. Total and federally financed R&D expenditures in chemistry at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	701,216	670,963	650,926	609,534	476,266	447,306	444,899	422,609
1 Univ of Texas at Austin	16,021	16,513	13,259	11,484	8,700	7,881	6,723	6,120
2 Harvard University	14,103	12,384	13,114	11,858	12,387	10,972	11,855	10,594
3 Mass Inst of Technology	13,999	16,426	17,109	15,031	12,384	14,549	15,129	13,333
4 Univ of Cal Berkeley	13,835	13,906	13,804	12,663	12,008	12,210	12,219	11,540
5 California Inst of Tech	12,647	13,931	10,667	9,235	10,970	12,006	8,629	7,459
6 Univ of Cal Los Angeles	12,137	10,519	11,217	9,855	10,841	9,327	10,216	9,024
7 Pennsylvania State Univ	11,719	9,635	9,148	8,616	6,972	6,630	6,429	6,515
8 Stanford University	10,846	8,882	9,693	10,098	8,414	7,452	8,839	8,878
9 Cornell University	10,550	10,825	10,042	10,217	8,852	8,365	7,211	7,458
10 Univ of MD College Park	9,991	8,415	10,977	9,732	4,687	4,566	4,774	3,844
Total, 1st 10 insts.	125,848	121,436	119,030	108,787	96,215	93,958	92,024	84,765
11 Univ of Pennsylvania	9,812	10,633	8,077	7,760	8,059	8,168	7,330	7,046
12 Univ of Wis-Madison	9,804	8,878	8,937	8,326	6,929	5,739	6,041	5,505
13 Georgia Institute of Tech	9,656	6,796	5,215	5,360	5,426	3,902	2,941	3,020
14 Univ of Mass - Amherst	9,583	--	--	--	5,522	--	--	--
15 University of Ill Urbana	9,439	9,457	9,230	9,208	6,804	6,484	6,563	6,566
16 Univ of Cal San Diego	9,076	8,811	8,120	6,487	7,799	7,949	7,422	5,757
17 Purdue University	8,879	8,690	8,672	8,769	6,909	7,086	6,893	7,102
18 Indiana University	8,853	7,324	7,344	7,927	6,157	5,173	5,225	6,127
19 Princeton University	8,557	8,663	9,099	8,873	5,952	5,794	6,104	5,681
20 Ohio State University	8,289	7,137	6,585	6,771	6,300	4,844	4,152	4,445
Total, 1st 20 insts.	217,796	197,825	190,289	178,288	162,072	149,097	144,695	136,014
21 Rutgers the St Univ of NJ	8,263	7,818	7,812	7,905	5,993	5,426	6,016	6,572
22 Yale University	7,974	7,587	6,037	5,915	6,752	6,521	5,256	5,011
23 Texas A & M University	7,903	8,201	8,046	9,808	4,187	4,395	3,716	4,408
24 Wayne State University	7,756	6,458	5,455	5,557	2,341	1,500	1,798	2,989
25 Northwestern University	7,651	7,781	7,219	7,661	5,372	5,462	5,485	5,577
26 University of Notre Dame	7,274	6,170	6,348	6,680	6,582	5,599	5,687	5,983
27 VA Polytech Inst & St U	7,178	7,157	6,321	5,155	2,950	2,958	2,522	2,194
28 Univ. of Colorado	6,895	6,863	6,041	6,587	5,494	5,422	5,218	5,418
29 Arizona State University	6,755	8,054	7,967	5,260	4,414	3,696	3,626	3,172
30 University of Utah	6,697	6,101	5,089	5,653	5,225	4,688	3,746	3,872
Total, 1st 30 insts.	292,142	270,015	256,824	244,449	211,382	194,764	187,725	181,210
31 University of Washington	6,538	5,789	6,057	5,192	4,011	3,798	4,139	3,756
32 Univ of Southern Cal	6,337	5,510	5,667	4,374	5,826	5,427	5,358	3,986
33 Univ of NC at Chapel Hill	6,308	5,613	5,310	5,171	5,281	4,990	4,851	4,534
34 Univ of Cal Irvine	6,237	5,546	4,835	3,910	5,662	5,226	4,437	3,685
35 University of Oregon	6,076	6,211	6,760	5,501	4,411	4,751	5,182	4,435
36 University of Arizona	6,030	5,531	5,034	4,532	3,969	3,580	3,210	3,044
37 Columbia Univ Main Div	5,985	6,305	5,858	4,721e	5,785	5,944	5,540	4,344e
38 University of Michigan	5,970	5,031	3,735	3,788	4,138	3,423	2,786	3,022
39 University of Minnesota	5,962	6,160	6,663	5,883	5,762	5,004	5,857	5,054
40 University of Pittsburgh	5,878	4,826	5,832	5,736	4,039	3,958	4,721	4,558
Total, 1st 40 insts.	363,449	326,537	312,375	293,237	260,506	240,853	233,606	221,628
41 University of Rochester	5,871	6,087	6,537	4,782	5,402	5,650	5,998	4,327
42 University of Florida	5,847	5,153	5,396	5,061	2,896	2,802	2,905	2,820
43 Emory University	5,846	4,269	4,228	3,581	4,752	3,290	3,509	2,719
44 Johns Hopkins Univ	5,358	6,584	5,435	5,152	4,992	6,044	4,994	4,824
45 Georgetown University	5,350	5,039	3,880	3,904	4,110	3,983	3,088	3,113
46 University of Kansas	5,254	5,059	5,450	4,952	1,877	1,788	2,099	2,030
47 University of Virginia	5,225	5,089	5,281	5,098	4,191	4,072	4,038	4,185
48 Rensselaer Polytech Inst	5,214	3,811	4,551	4,156	2,497	1,778	2,214	2,050
49 Univ Alabama Huntsville	5,157	4,021	4,317	2,972	4,591	3,610	3,880	2,414
50 University of Georgia	5,042	5,508	4,453	4,091	2,096	2,198	1,661	1,866
Total, 1st 50 insts.	407,411	377,117	361,883	336,984	297,908	276,048	267,982	251,956

See explanatory information and SOURCE at end of table.

Table B-52. Total and federally financed R&D expenditures in chemistry at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 Rockefeller University	5,027	7,023	9,248	7,471	3,295	3,289	4,331	3,713
52 SUNY at Buffalo	4,932	4,789	4,770	4,644	3,018	2,881	2,955	2,782
53 Colorado State University	4,827	4,093	3,683	4,204	3,794	3,146	2,998	3,457
54 Univ. Of Tennessee System	4,730	4,681	4,114	4,777	3,171	2,272	2,441	2,985
55 Univ of Nebraska-Lincoln	4,698	2,592	2,658	2,882	2,931	1,952	1,925	2,392
56 SUNY at Stony Brook	4,691	5,426	4,897	4,754	3,129	3,940	3,816	3,610
57 University of Chicago	4,669	4,728	9,331	9,333	4,235	4,597	8,524	8,621
58 University of Oklahoma	4,641	3,713	3,287	3,968	1,652	1,443	1,221	1,775
59 Univ of South Carolina	4,481	3,645	4,307	4,466	2,728	2,540	2,992	2,905
60 Univ of Cal Santa Barbara	4,327	3,652	4,399	3,714	3,835	3,201	3,869	3,242
Total, 1st 60 insts.	454,434	421,459	412,577	387,177	329,696	305,309	303,054	287,438
61 U of Houston	4,320	4,360	4,724	4,908	1,895	1,815	1,934	2,118
62 Louisiana State Univ Sys	3,959	4,555	4,348	4,698	1,855	1,729	1,887	2,264
63 University of Cincinnati	3,747	4,004	3,605	4,655	2,402	2,241	2,151	2,755
64 Univ of Ill Chicago	3,666	4,187	4,494	3,721	2,441	2,222	2,930	2,612
65 Florida State University	3,655	4,696	5,345	5,382	1,928	1,649	1,320	1,997
66 University of Iowa	3,627	3,461	4,294	3,277	2,448	2,137	2,929	2,364
67 Lehigh University	3,599	3,694	3,770	3,959	1,880	1,780	1,745	1,817
68 Oregon State University	3,541	2,522	2,647	3,565	2,424	1,660	1,472	1,794
69 Michigan State University	3,526	3,302i	3,138	3,602	2,274	2,109i	1,992	2,363
70 Washington University	3,525	2,928	3,436	3,741	2,885	2,336	2,759	3,088
Total, 1st 70 insts.	491,599	459,168	452,378	428,685	352,108	324,987	324,173	310,610
71 Brown University	3,424	2,822	2,636	2,546	2,095	1,972	2,254	2,228
72 Rice University	3,327	3,526	3,337	3,144	2,114	2,251	2,330	2,133
73 Univ of Sthm Mississippi	3,325	5,812	3,266	2,807	3,119	5,435	2,850	2,265
74 Duke University	3,241	3,035	2,974	2,458	2,262	1,750	1,677	1,573
75 Texas Tech University	3,226	2,451	2,335	2,067	1,289	852	586	618
76 University of Delaware	3,217	3,175	2,381	2,795	1,874	1,877	1,472	1,747
77 Univ of Cal Davis	3,171	3,128	3,582	3,693	2,621	2,632	2,996	3,386
78 Case Western Reserve Univ	2,856	3,077	8,252e	8,233	1,821	2,135	4,246	5,161
79 North Dakota State Univ	2,652	6,256	1,423	1,357	1,168	919	786	561
80 Auburn University	2,797	2,072	2,280	740	330	361	361	515
Total, 1st 80 insts.	523,035	494,522	484,874	458,525	370,801	345,171	343,731	330,817
81 Oregon Grad Inst Sci/Tech	2,797	2,580	2,300	1,995	1,757	2,125	2,004	1,700
82 Univ of Ark Fayetteville	2,773	2,541	2,110	1,980	1,034	1,026	948	835
83 CUNY City College	2,756	2,671	2,268	2,055	2,755	2,671	2,198	1,959
84 Iowa St U of Sci & Tech	2,720	5,621	3,851	2,910	1,139	1,843	1,331	1,004
85 Carnegie-Mellon Univ	2,489	2,873	3,239	3,854	1,989	2,472	2,770	2,917
86 New York University	2,399	3,012	1,693	1,382	1,887	2,453	1,397	1,288
87 Syracuse University	2,395	2,334	2,861	2,313	1,444	1,520	1,945	1,602
88 Univ of Cal Riverside	2,384	2,215	2,076	2,297	2,007	1,994	1,890	2,040
89 CUNY Hunter College	2,366	2,484	2,307	2,018	1,813	1,889	1,668	1,507
90 Univ of Cal Santa Cruz	2,338	2,157	1,640	1,350	1,956	1,730	1,398	1,102
Total, 1st 90 insts.	548,452	523,010	509,189	480,685	388,582	364,874	361,280	346,771
91 Clark Atlanta University	2,330	2,440	2,472i	2,232i	1,976	1,834	1,889i	1,739i
92 Washington State Univ	2,268	1,045	1,233	1,167	1,787	921	866	974
93 The University of Alabama	2,291	1,967	2,195	2,039	1,340	953	1,386	1,431
94 Clemson University	2,271	1,993	1,857	1,467	584	426	503	359
95 Boston College	2,173	2,215	2,291	1,686	1,980	2,192	1,856	1,617
96 University of Toledo	2,164	2,113	670	470	773	988	194	243
97 Montana State University	2,142	2,063	2,178	2,176	1,276	1,081	790	1,390
98 Brigham Young University	2,045	1,559	1,855	2,320i	680	570	552	611i
99 Univ of Tex at Arlington	2,033	1,801	1,259	1,158	661	765	806	771
100 University of Connecticut	2,019	2,078	2,148	1,985	509	504	702	695
Total, 1st 100 insts.	570,216	542,384	527,345	497,387	400,125	375,068	370,824	356,801
Total, all other sampled insts.	113,010	112,148	109,405	99,272	66,801	64,437	66,994	59,194
Estimated total non-sampled insts.	17,990	16,433	14,176	12,875	9,540	7,801	7,081	6,811

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-53. Total and federally financed R&D expenditures in physics at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	915,347	871,832	841,805	784,509	701,423	667,930	651,363	605,146
1 Johns Hopkins Univ	83,658	78,983	65,897	68,645	82,834	78,617	65,287	67,707
2 Mass Inst of Technology	71,814	74,892	71,674	66,183	63,294	65,982	63,981	57,879
3 Univ of Cal Berkeley	39,351	34,707	30,565	26,457	35,800	31,206	26,759	22,874
4 Univ of MD College Park	27,585	33,084	29,200	25,257	13,609	17,715	14,512	13,007
5 Cornell University	26,089	26,195	27,415	25,895	22,939	22,675	22,913	21,071
6 California Inst of Tech	25,812	24,028	22,702	22,541	24,599	22,872	21,255	21,007
7 Michigan State University	19,985	18,713	17,760	17,516	14,262	13,228	12,493	11,840
8 Indiana University	19,166	15,823	14,759	13,580	13,904	13,243	12,322	11,678
9 Univ of Texas at Austin	17,529	18,033	19,009	16,047	11,891	11,397	11,638	9,995
10 University of Michigan	15,988	14,541	9,818	9,928	7,853	8,758	7,401	7,597
Total, 1st 10 insts.	346,977	338,999	308,599	292,049	290,985	285,893	258,561	244,655
11 Univ of Wis-Madison	15,446	14,150	11,963	11,459	12,887	12,106	10,397	9,934
12 University of Iowa	14,879	13,063	11,476	8,851	12,378	11,233	9,945	7,802
13 University of Arizona	14,595	16,123	18,532	17,873	7,099	7,918	8,254	7,582
14 SUNY at Stony Brook	14,186	14,600	15,038	12,681	9,741	9,969	10,690	8,602
15 Florida State University	12,684	17,758	19,672	16,028	8,009	11,210	14,830	9,257
16 Univ of Cal San Diego	12,675	12,419	9,377	7,904	11,647	11,563	8,531	7,135
17 Princeton University	12,441	11,468	10,976	9,060	9,973	9,341	8,357	7,591
18 Rutgers the St Univ of NJ	12,237	10,561	9,461	8,575	4,694	4,032	3,749	3,592
19 Univ of Cal Los Angeles	11,780	10,752	10,752	10,826	10,562	9,836	10,192	9,570
20 University of Ill Urbana	11,382	11,511	12,478	12,655	9,436	9,651	10,706	10,733
Total, 1st 20 insts.	479,282	471,404	438,354	407,981	387,411	382,572	354,212	326,453
21 Yale University	10,319	9,999	8,264	8,238	9,123	9,180	7,756	7,510
22 Harvard University	10,207	10,270	10,363	9,169	8,145	7,928	8,236	7,664
23 Univ of Cal Santa Barbara	10,016	9,327	8,529	8,779	8,940	8,344	7,498	7,797
24 Univ. of Colorado	9,531	8,383	7,151	6,970	7,897	6,962	6,148	5,969
25 University of Washington	9,109	7,730	7,785	6,971	8,693	7,330	7,545	6,605
26 University of Minnesota	8,888	10,625	8,225	7,036	6,812	6,890	5,475	5,009
27 Univ of Pennsylvania	8,548	7,538	7,320	7,149	7,417	7,215	7,084	6,553
28 Boston University	8,339	6,946	6,309	3,890	7,179	6,309	5,971	3,792
29 Duke University	8,117	7,655	6,111	5,406	7,367	7,257	5,667	4,982
30 Ohio State University	7,864	6,925	6,268	5,225	5,781	4,019	3,750	3,633
Total, 1st 30 insts.	570,220	556,802	514,679	476,814	464,765	454,006	419,340	385,967
31 Texas A & M University	7,853	5,533	7,209	7,098	5,117	4,089	4,106	3,947
32 Univ of Cal Irvine	7,635	7,343	7,317	7,379	6,904	6,801	6,642	6,912
33 Georgia Institute of Tech	7,573	5,929	9,783	13,781	4,255	3,405	5,516	7,736
34 Univ. Of Tennessee System	7,227	6,717	6,622	6,366	4,328	4,012	3,987	3,307
35 Univ of Alaska Fairbanks	7,174	6,807	5,987	6,258	5,002	4,950	3,593	3,781
36 Purdue University	6,935	6,444	5,795	4,896	4,987	4,648	4,004	3,434
37 University of Rochester	6,821	5,367	6,205	6,131	6,050	5,246	5,955	5,845
38 University of Virginia	6,457	5,794	5,280	4,908	4,757	4,232	3,555	3,146
39 Univ Alabama Huntsville	6,287	4,933	6,527	6,218	5,334	4,004	5,294	4,868
40 Louisiana State Univ Sys	6,092	4,830	4,454	3,769	3,414	2,806	2,906	2,477
Total, 1st 40 insts.	640,274	616,499	579,838	543,618	514,893	496,197	464,878	431,420
41 Univ of Texas at Dallas	5,902	3,522	4,406	4,616	4,892	2,393	2,916	3,784
42 Univ of Cal Davis	5,499	4,343	4,269	3,653	4,746	3,868	3,913	3,217
43 University of Oregon	5,455	4,793	5,354	4,088	3,377	3,201	3,713	2,809
44 N C State Univ at Raleigh	5,194	5,013	3,989	3,748	2,823	2,373	2,900	1,998
45 Utah State University	5,176	3,281	3,209	3,283	4,424	2,588	2,671	2,814
46 Stanford University	5,089	4,374	4,528	6,135	4,138	3,833	4,344	5,729
47 Univ of Mass - Amherst	5,073	--	--	--	3,695	--	--	--
48 University of Pittsburgh	4,768	4,692	5,139	3,891	3,727	3,586	3,802	2,955
49 Vanderbilt University	4,761	5,099	5,219	5,837	3,992	4,747	4,930	5,102
50 Arizona State University	4,662	3,021	3,043	2,995	3,335	2,235	2,196	2,269
Total, 1st 50 insts.	691,853	654,637	618,996	581,864	554,042	527,021	496,263	462,215

See explanatory information and SOURCE at end of table.

Table B-53. Total and federally financed R&D expenditures in physics at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 Brown University	4,540	4,085	3,526	2,894	2,868	2,508	3,101	2,589
52 University of Utah	4,483	2,758	3,026	2,980	3,751	2,294	2,353	2,252
53 University of Mississippi	4,432	5,281	3,495	506	3,576	4,379	3,082	405
54 University of Notre Dame	4,432	4,136	4,387	4,381	3,230	3,044	3,237	3,393
55 University of Florida	4,357	4,229	5,157	4,720	2,263	2,302	3,208	3,236
56 Univ of Cal Santa Cruz	4,219	3,573	3,482	3,447	3,272	2,852	3,042	3,056
57 Northwestern University	3,999	4,057	4,541	4,208	3,383	3,286	3,892	3,452
58 U of Houston	3,971	3,458	11,149	10,973	2,339	2,622	7,758	5,810
59 Univ of Ill Chicago	3,939	2,596	3,710	3,284	2,811	1,685	2,677	2,268
60 UT MD Anderson Cancer Ctr	3,772	4,183	4,106	3,606	1,853	1,966	1,860	2,103
Total, 1st 60 insts.	733,997	692,993	665,575	622,863	583,388	553,959	530,473	490,779
61 Pennsylvania State Univ	3,639	3,225	3,365	2,679	1,998	1,722	2,128	1,830
62 Washington University	3,611	3,289	3,118	2,734	3,120	2,859	2,472	2,537
63 Oklahoma State University	3,560	3,441	2,634	1,875	920	822	1,082	1,183
64 Alabama A & M University	3,413	3,517	3,094	2,390	2,862	3,050	2,592	1,939
65 Carnegie-Mellon Univ	3,357	3,115	3,338	3,201	3,000	2,864	3,079	3,033
66 Univ of Missouri Columbia	3,257	3,369	1,974	690	610	702	298	338
67 Wayne State University	3,161	2,438	2,445	1,673	695	449	506	594
68 Syracuse University	2,971	2,819	2,986	2,599	2,280	2,197	2,141	1,591
69 The University of Alabama	2,850	2,192	1,272	192	887	585	360	122
70 Rice University	2,800	2,950	2,682	1,953	2,288	2,395	2,159	1,583
Total, 1st 70 insts.	766,616	723,348	692,483	642,849	602,048	571,604	547,290	505,529
71 College of William & Mary	2,784	2,815	2,442	1,642	2,274	2,147	1,805	1,500
72 CUNY City College	2,611	3,208	3,155	3,504	2,320	2,773	2,707	3,042
73 Univ of Hawaii-Manoa	2,491	1,858	1,660	1,673	2,226	1,795	1,563	1,535
74 Clemson University	2,486	2,104	1,710	1,385	1,142	691	586	363
75 Univ of Nebraska-Lincoln	2,475	2,464	1,961	1,901	1,093	1,179	1,065	1,088
76 University of Georgia	2,459	2,553	2,253	2,148	955	986	841	788
77 University of New Mexico	2,348	1,805	1,724	1,932	1,232	1,200	1,258	1,369
78 Kans St U - Ag & App Sci	2,302	1,760	2,096	2,485	2,078	1,616	1,920	2,271
79 US Naval Postgrad School	2,174	2,282	2,477	2,261	2,046	2,279	2,443	2,204
80 University of Oklahoma	2,166	1,977	1,743	1,308	714	657	515	443
Total, 1st 80 insts.	790,912	746,174	713,704	663,088	618,128	586,927	561,993	520,112
81 Univ of Mass - Lowell	2,150	1,872	1,647	1,314	1,853	1,537	890	968
82 Rockefeller University	2,118	2,008	2,413	2,047	1,150	860	1,034	764
83 VA Polytech Inst & St U	2,049	2,344	2,890	2,586	1,226	1,522	1,872	1,674
84 New York University	2,001	1,523	1,417	1,674	1,821	1,510	1,348	1,496
85 Northeastern University	1,950	3,076	2,080	2,250	1,812	1,974 i	1,726	1,982
86 Rensselaer Polytech Inst	1,948	1,445	1,546	1,587	933	674	752	783
87 University of Denver	1,947	2,356	1,853	1,575	1,664	1,634 i	1,519	1,400
88 Univ of South Carolina	1,906	1,610	1,261	1,378	906	898	837	694
89 Hampton University	1,898	2,267	1,424	1,398	1,898	2,267	1,424	1,398
90 Iowa St U of Sci & Tech	1,834	2,785	1,476	1,301	1,194	954	826	742
Total, 1st 90 insts.	810,713	767,460	731,711	680,198	632,605	600,757	574,221	531,993
91 Case Western Reserve Univ	1,816	1,919	1,770e	1,706	1,407	1,470	1,561	1,546
92 Univ of Southern Cal	1,797	1,754	1,694	1,612	1,697	1,677	1,616	1,510
93 Univ of Cal Riverside	1,794	2,084	1,968	1,849	1,763	2,074	1,958	1,826
94 SUNY at Buffalo	1,783	1,977	1,564	1,159	1,162	1,132	776	600
95 Lehigh University	1,758	1,301	1,468	1,626	1,337	825	999	985
96 Drexel University	1,753	1,371	1,561	1,424	963	830	1,062	935
97 Univ of North Texas	1,690	1,302	1,452	1,675	240	464	487	930
98 Univ of NC at Chapel Hill	1,686	1,352	1,171	1,337	1,088	860	749	945
99 Auburn University	1,611	1,828	1,498	973	888	990	663	457
100 Montana State University	1,600	1,491	2,030	2,129	1,065	728	1,085	1,280
Total, 1st 100 insts.	828,001	783,839	747,887	695,688	644,215	611,807	585,177	543,007
Total, all other sampled insts.	77,918	79,563	87,834	84,640	51,183	51,236	62,910	59,495
Estimated total non-sampled insts.	9,428	8,430	6,084	4,181	6,025	4,887	3,276	2,844

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY:
c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-54. R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Environmental sciences total				1992 subfields			
	1992	1991	1990	1989	Atmospheric	Earth sciences	Oceanography	Other
Total, all institutions	1,248,800	1,129,861	1,079,930	1,014,205	193,887	414,270	437,406	203,236
1 Univ of Cal San Diego	73,193	70,038	73,805	75,600	0	18,105	55,088	0
2 Woods Hole Ocngrphic Inst	69,716	64,814	60,404	65,436	4,969	23,421	18,028	23,298
3 Texas A & M University	65,732	69,272	64,027	52,220	941	3,671	44,440	16,680
4 University of Washington	59,379	22,771	21,389	19,198	8,144	5,949	44,956	330
5 Johns Hopkins Univ	41,082	39,546	41,412	43,970	10,097	2,855	16,436	11,694
6 Univ of Alaska Fairbanks	31,109	31,485	24,879	21,766	1,194	12,203	17,602	110
7 Univ of Texas at Austin	28,888	28,919	25,285	20,919	0	19,198	9,690	0
8 Univ. of Colorado	28,725	25,508	23,643	22,512	14,913	9,769	1,514	2,529
9 Columbia Univ Main Div	27,480	29,777	24,529	29,982	0	0	27,480	0
10 University of Ill Urbana	26,970	25,670	23,497	20,702	1,599	22,319	0	3,052
Total, 1st 10 insts.	452,274	407,800	382,870	372,305	41,857	117,490	235,234	57,693
11 Oregon State University	24,122	21,144	18,623	20,097	486	999	22,637	0
12 Univ of Wis-Madison	21,726	21,194	22,033	20,869	13,144	2,414	2,845	3,323
13 University of Michigan	20,533	17,742	17,154	16,142	10,310	3,651	1,906	4,666
14 University of Arizona	20,308	16,176	22,397	22,612	2,027	5,015	0	13,266
15 University of Miami	19,840	19,149	18,626	16,132	9,877	0	7,255	2,708
16 U of MD Center For EES	18,557	16,205	15,652	13,741	0	0	17,156	1,401
17 Univ of Rhode Island	18,439	17,442	18,944	14,917	1,640	202	16,597	0
18 Univ of New Hampshire	18,339	15,375	14,167	11,405	7,742	1,299	365	8,933
19 Pennsylvania State Univ	17,918	15,536	14,095	12,537	5,555	10,021	0	2,342
20 Louisiana State Univ Sys	17,877	16,303	14,845	14,329	0	5,216	9,630	3,031
Total, 1st 20 insts.	649,933	584,066	559,406	535,080	92,638	146,307	313,625	97,363
21 Univ of Hawaii-Manoa	17,406	20,168	24,188	23,005	0	13,746	2,086	1,574
22 Desert Research Institute	15,397	14,043	14,118	13,671	3,427	6,702	0	5,268
23 Univ of Cal Los Angeles	13,151	13,813	12,215	11,272	2,959	10,192	0	0
24 California Inst of Tech	13,114	16,627	15,957	14,391	0	12,459	0	655
25 Mass Inst of Technology	13,069	12,580	12,247	11,614	261	10,848	1,960	0
26 College of William & Mary	13,018	12,784	12,794	11,906	0	0	13,018	0
27 Univ of Southern Cal	12,736	7,798	7,207	7,305	0	6,654	3,804	2,278
28 Univ. Of Tennessee System	11,993	9,817	8,312	6,724	87	1,502	0	10,404
29 VA Polytech Inst & St U	11,891	6,294	3,434	3,497	0	8,951	0	2,940
30 Univ of South Carolina	11,835	9,786	9,617	7,972	0	9,163	2,672	0
Total, 1st 30 insts.	783,543	707,776	679,495	646,443	99,372	226,524	337,165	120,482
31 University of Minnesota	11,830	12,053	8,802	7,198	0	5,430	0	6,400
32 SUNY at Stony Brook	11,799	11,140	9,874	10,021	716	3,003	8,080	0
33 Colorado State University	10,882	9,520	8,207	7,813	10,817	65	0	0
34 Utah State University	10,643	11,813	10,843	11,248	5,605	5,038	0	0
35 Univ of MD College Park	10,558	8,232	6,437	6,557	7,916	1,107	1,535	0
36 Univ of Cal Santa Barbara	10,488	10,014	9,611	9,305	0	2,375	7,966	147
37 Florida State University	10,288	11,948	12,945	10,596	6,090	949	2,416	833
38 Univ of Cal Santa Cruz	9,856	6,836	4,694	3,796	0	3,428	6,355	73
39 Harvard University	9,839	7,499	6,303	6,692	0	9,839	0	0
40 University of Oklahoma	9,192	11,009	9,056	8,632	5,171	4,021	0	0
Total, 1st 40 insts.	888,918	807,840	766,267	728,299	135,687	261,779	363,517	127,935
41 Arizona State University	8,830	5,376	7,529	4,399	0	8,811	0	19
42 New Mexico State Univ	8,631	3,089	2,108	1,788	7,929	533	0	169
43 Rutgers the St Univ of NJ	8,507	7,909	5,949	5,439	367	448	2,296	5,396
44 N J Inst of Technology	8,396	5,548	4,922	2,516	0	0	0	8,396
45 Univ of NC at Chapel Hill	7,989	6,937	5,192	4,700	0	5,235	2,754	0
46 Univ of South Florida	7,867	6,305	5,063	3,955	0	894	6,973	0
47 University of Kansas	7,812	6,759	6,196	7,324	0	7,488	0	324
48 University of Delaware	7,746	6,563	6,721	6,641	0	716	7,030	0
49 University of Connecticut	7,300	8,114	7,311	6,569	0	682	6,618	0
50 Princeton University	7,150	6,974	6,270	6,366	3,168	3,982	0	0
Total, 1st 50 insts.	969,146	871,394	823,528	776,018	147,151	290,568	389,188	142,239

See explanatory information and SOURCE at end of table.

Table B-54. R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Environmental sciences total				1992 subfields			
	1992	1991	1990	1989	Atmospheric	Earth sciences	Oceanography	Other
51 Georgia Institute of Tech	7,128	5,519	10,257	9,918	1,704	4,605	0	819
52 Univ of Central Florida	7,107	7,307	7,084	8,739	6,982	125	0	0
53 Univ of Nebraska-Lincoln	6,941	5,657	2,996	2,314	1,580	5,361	0	0
54 Stanford University	6,882	5,598	2,804	5,186	0	5,432	1,450	0
55 Ohio State University	6,728	7,210	5,150	4,491	0	3,028	0	3,700
56 N C State Univ at Raleigh	6,503	6,584	5,301	5,473	58	0	2,682	3,763
57 SUNY at Albany	6,255	7,556	8,881	11,089	5,905	350	0	0
58 University of Georgia	6,252	6,625	6,737	6,111	0	3,344	2,908	0
59 Univ of Nevada, Las Vegas	6,243	5,387	4,525i	3,270i	0	584	0	5,659
60 University of Virginia	6,192	4,827	5,322	4,588	3,889	0	1,949	354
Total, 1st 60 insts.	1,035,377	933,664	882,585	839,197	167,269	313,397	398,177	156,534
61 Univ of Mass - Amherst	6,158	--	--	--	0	3,919	0	2,239
62 N Mex Inst Mining & Tech	5,891	5,235i	4,576	4,114	0	3,794	0	2,097
63 University of Wyoming	5,742	3,460	3,046	2,704	2,049	2,125	0	1,568
64 University of Florida	5,493	5,270	4,526	3,944	0	1,322	3,315	856
65 West Virginia University	5,386	5,273	6,314	1,378	0	1,300	0	4,086
66 San Jose State University	5,300	4,433	3,805	3,698	912	270	4,118	0
67 Univ of Cal Berkeley	5,259	3,619	5,389	3,024	0	5,170	0	89
68 Brown University	5,106	5,241	4,669	4,138	0	5,108	0	0
69 Cornell University	5,106	6,496	6,215	5,504	0	2,655	0	2,451
70 Univ of Nevada - Reno	4,699	4,132	4,424	3,738	0	1,790	7	2,902
Total, 1st 70 insts.	1,089,517	976,823	925,549	871,439	170,230	340,848	405,617	172,822
71 Univ of Maine Orono	4,448	5,107	4,350	3,330	0	3,184	1,264	0
72 University of Utah	4,229	3,659	3,521	3,477	1,610	2,619	0	0
73 Tufts University	3,698	3,565	4,148	3,922	0	17	0	3,671
74 Duke University	3,492	2,797	2,520	3,316	0	776	2,716	0
75 Old Dominion University	3,424	1,642	1,536	1,229	0	0	1,409	2,015
76 US Naval Postgrad School	3,231	3,426	3,558	3,029	1,432	0	1,799	0
77 University of Chicago	3,156	3,752	4,089	3,994	0	3,156	0	0
78 Univ of Wis-Milwaukee	3,075	2,741	2,740	2,457	0	231	2,831	13
79 University of Oregon	2,880	2,758	2,655	2,510	0	1,085	1,780	35
80 Rice University	2,878	2,685	2,849	2,175	0	1,417	0	1,461
Total, 1st 80 insts.	1,124,018	1,008,955	957,515	900,878	173,272	353,313	417,416	180,017
81 Southern Methodist Univ	2,874	3,991	7,011i	4,051	0	2,874	0	0
82 Memphis State University	2,741	3,047	2,946	2,679	0	2,741	0	0
83 Oregon Grad Inst Sci/Tech	2,687	2,598	2,165	2,289	894	0	0	1,793
84 Univ Alabama Huntsville	2,644	923	1,406	989	2,644	0	0	0
85 University of Idaho	2,588	1,961	2,006	1,436	0	1,529	0	1,059
86 Yale University	2,309	2,369	2,329	2,153	910	931	313	155
87 Washington University	2,274	1,987	1,999	1,966	0	2,274	0	0
88 Carnegie-Mellon Univ	2,232	2,127	1,866	1,676	0	0	0	2,232
89 Purdue University	2,155	2,202	1,862	2,020	434i	669i	609i	243i
90 S Dak Sch Mines & Tech	2,007	1,620	1,504	1,573	2,007	0	0	0
Total, 1st 90 insts.	1,148,529	1,031,770	982,649	921,710	180,161	364,531	418,338	185,499
91 Michigan State University	1,987	1,842i	1,758	1,159	0	190	0	1,777
92 Univ of Wis-Superior	1,863	1,702	1,692	1,745	0	0	0	1,863
93 SUNY Col of Env Sci & For	1,846	1,864	2,177	2,234	1,004	124	378	340
94 Colorado School of Mines	1,810	737	601	2,229	0	1,523	0	287
95 Univ of Missouri Columbia	1,687	1,204	1,012	1,128	523	1,164	0	0
96 Indiana University	1,666	765	555	631	0	1,666	0	0
97 Univ of North Dakota	1,577	2,674	2,882	2,923	1,457	42	0	78
98 Western Michigan Univ	1,577	1,334	753	568i	118	1,457	2	0
99 The University of Alabama	1,519	1,992	2,244	2,291	0	621	0	898
100 University of New Mexico	1,499	1,665	1,628	1,521	479	1,020	0	0
Total, 1st 100 insts.	1,165,540	1,047,549	997,951	936,139	183,742	372,338	418,718	190,742
Total, all other sampled insts.	56,868	59,828	61,370	57,495	3,941	34,064	6,743	12,120
Estimated total non-sampled insts.	26,392	22,486	20,609	18,571	6,204	7,868	11,945	374

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-55. Federally financed R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Environmental sciences total				1992 subfields			
	1992	1991	1990	1989	Atmos-pheric	Earth sciences	Ocean-ography	Other
Total, all institutions	799,184	707,844	690,832	660,752	146,762	236,012	310,864	105,545
1 Woods Hole Oceanographic Inst	61,785	56,693	52,642	57,043	4,204	21,636	15,696	20,249
2 University of Washington	56,500	21,133	20,274	17,954	7,939	5,611	42,797	153
3 Univ of Cal San Diego	50,757	47,954	53,102	57,182	0	10,038	40,719	0
4 Texas A & M University	48,909	47,120	45,980	42,308	654	800	38,404	9,051
5 Johns Hopkins Univ	38,508	36,233	37,661	40,712	10,084	2,651	16,364	9,409
6 Columbia Univ Main Div	27,068	29,006	23,965	28,204	0	0	27,068	0
7 Univ. of Colorado	22,201	20,470	20,252	18,997	11,473	7,830	732	2,166
8 Oregon State University	20,183	17,962	16,568	16,577	481	631	19,071	0
9 Univ of Alaska Fairbanks	18,077	19,382	14,079	11,390	1,194	8,574	8,269	40
10 University of Miami	17,628	16,288	14,981	13,691	8,956	0	6,063	2,609
Total, 1st 10 insts.	361,616	312,241	299,504	304,058	44,985	57,771	215,183	43,677
11 Univ of Rhode Island	15,098	14,209	14,239	10,829	1,349	102	13,647	0
12 University of Michigan	14,600	12,631	13,150	11,965	9,285	2,188	1,171	1,956
13 Univ of Hawaii-Manoa	14,473	15,095	15,393	14,673	0	12,764	1,455	254
14 Univ of Wis-Madison	14,470	14,109	15,865	14,461	10,889	1,194	751	1,636
15 Univ of New Hampshire	13,077	11,745	9,198	7,631	6,276	1,032	248	5,521
16 California Inst of Tech	12,154	15,811	15,155	13,628	0	12,153	0	1
17 Univ of Texas at Austin	12,048	10,558	6,644	5,137	0	9,076	2,972	0
18 Mass Inst of Technology	10,704	10,160	9,776	9,032	214	8,884	1,606	0
19 Univ of Southern Cal	9,939	6,294	5,196	5,326	0	5,788	2,899	1,252
20 Colorado State University	9,028	8,082	7,414	7,134	8,979	49	0	0
Total, 1st 20 insts.	487,207	430,935	411,534	403,874	81,977	111,001	239,932	54,297
21 Univ of Cal Los Angeles	8,923	9,763	8,654	7,753	2,644	6,279	0	0
22 Pennsylvania State Univ	8,774	7,245	6,313	5,857	4,326	4,061	0	387
23 Univ. Of Tennessee System	8,595	6,357	4,907	4,342	80	982	0	7,533
24 Arizona State University	8,403	4,922	7,073	4,017	0	8,403	0	0
25 Desert Research Institute	8,219	7,337	6,983	7,380	2,123	5,483	0	613
26 Harvard University	7,640	6,273	5,815	6,202	0	7,640	0	0
27 Florida State University	7,438	7,714	8,322	6,504	4,663	334	1,993	448
28 New Mexico State Univ	7,370	2,200	1,797	1,501	6,943	351	0	76
29 Univ of Cal Santa Barbara	7,290	7,036	7,029	6,604	0	1,574	5,716	0
30 SUNY at Stony Brook	7,197	6,816	6,018	5,081	539	2,080	4,578	0
Total, 1st 30 insts.	567,056	496,598	474,445	459,115	103,295	148,188	252,219	63,354
31 Louisiana State Univ Sys	7,099	5,829	5,975	4,822	0	1,857	4,542	700
32 University of Arizona	6,895	4,964	6,644	6,665	602	2,426	0	3,867
33 University of Ill Urbana	6,152	5,712	6,054	6,030	1,265	3,966	0	921
34 VA Polytech Inst & St U	6,130	3,487	1,580	1,694	0	3,190	0	2,940
35 Univ of MD College Park	5,728	5,064	4,593	5,061	4,388	453	887	0
36 Univ of Nevada, Las Vegas	5,587	4,731	4,048	2,737	0	548	0	5,039
37 Univ of Cal Santa Cruz	5,551	4,089	2,725	2,270	0	2,189	3,291	71
38 University of Delaware	4,994	4,185	3,786	3,666	0	420	4,574	0
39 University of Virginia	4,940	4,208	4,670	3,940	3,036	0	1,904	0
40 Princeton University	4,526	4,404	3,930	3,454	2,484	2,042	0	0
Total, 1st 40 insts.	624,458	543,271	518,450	499,454	115,070	165,279	267,417	76,692
41 Utah State University	4,470	5,607	4,998	5,811	3,224	1,246	0	0
42 Ohio State University	4,469	4,056	2,744	2,465	0	1,838	0	2,631
43 College of William & Mary	4,428	3,788	3,346	2,601	0	0	4,428	0
44 U of MD Center For EES	4,321	2,857	2,379	2,519	0	0	4,153	168
45 Brown University	4,183	4,204	3,961	3,499	0	4,183	0	0
46 University of Connecticut	4,093	4,762	4,341	4,366	0	406	3,687	0
47 University of Minnesota	4,090	2,568	2,440	2,790	0	2,414	0	1,666
48 Stanford University	4,052	2,868	2,236	3,218	0	2,873	1,179	0
49 Georgia Institute of Tech	4,006	3,169	5,784	5,568	958	2,588	0	460
50 Univ of South Carolina	3,842	2,962	2,827	2,612	0	2,538	1,304	0
Total, 1st 50 insts.	666,402	580,132	553,506	534,903	119,252	183,385	282,168	81,617

See explanatory information and SOURCE at end of table.

Table B-55. Federally financed R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Environmental sciences total				1992 subfields			
	1992	1991	1990	1989	Atmospheric	Earth sciences	Oceanography	Other
51 Univ of NC at Chapel Hill	3,750	3,123	2,614	2,666	0	2,609	1,141	0
52 West Virginia University	3,478	3,713	5,106	554	0	671	0	2,807
53 Univ of Cal Berkeley	3,376	2,334	3,954	2,011	0	3,365	0	11
54 Tufts University	3,375	3,397	3,737	2,937	0	15	0	3,360
55 Univ of South Florida	3,352	2,961	2,785	3,080	0	121	3,231	0
56 SUNY at Albany	3,302	3,136	4,953	5,282	3,109	193	0	0
57 US Naval Postgrad School	3,217	3,423	3,543	2,981	1,432	0	1,785	0
58 N C State Univ at Raleigh	3,124	3,276	2,625	2,257	0	0	1,079	2,045
59 Cornell University	3,054	3,824	3,161	3,120	0	2,273	0	781
60 San Jose State University	2,881	2,711	2,936	3,116	799	133	1,949	0
Total, 1st 60 insts.	699,311	612,030	588,920	562,907	124,592	192,745	291,353	90,621
61 University of Oklahoma	2,807	2,427	2,399	2,494	1,962	845	0	0
62 University of Wyoming	2,597	1,798	1,825	2,055	1,796	641	0	160
63 University of Utah	2,592	2,154	1,978	2,238	1,454	1,138	0	0
64 Rutgers the St Univ of NJ	2,509	945	710	804	104	312	1,392	701
65 Southern Methodist Univ	2,482	3,886	6,896l	3,913	0	2,482	0	0
66 Univ of Nevada - Reno	2,432	2,044	2,467	1,800	0	1,347	2	1,083
67 Univ of Maine Orono	2,356	3,606	2,806	2,236	0	1,578	778	0
68 Duke University	2,296	1,883	1,817	2,112	0	658	1,638	0
69 Univ Alabama Huntsville	2,230	629	914	670	2,230	0	0	0
70 University of Florida	2,205	1,915	1,940	1,820	0	422	1,638	145
Total, 1st 70 insts.	723,817	633,317	612,672	583,049	132,138	202,168	296,801	92,710
71 University of Chicago	2,201	2,309	3,728	3,765	0	2,201	0	0
72 N Mex Inst Mining & Tech	2,140	2,041l	1,940	1,897	0	821	0	1,319
73 University of Oregon	2,137	2,209	2,206	2,048	0	646	1,491	0
74 Univ of Mass - Amherst	2,091	--	--	--	0	1,610	0	481
75 N J Inst of Technology	2,038	1,295	1,241e	0	0	0	0	2,038
76 Rice University	1,920	1,683	2,274	1,808	0	1,217	0	703
77 Yale University	1,732	1,648	1,754	1,482	727	745	156	104
78 S Dak Sch Mines & Tech	1,707	1,375	1,274	1,367	1,707	0	0	0
79 Washington University	1,618	1,390	1,414	1,470	0	1,618	0	0
80 Univ of Nebraska-Lincoln	1,483	1,771	679	1,469	612	871	0	0
Total, 1st 80 insts.	742,884	649,038	629,182	598,355	135,184	211,897	298,448	97,355
81 Purdue University	1,467	1,546	1,331	1,558	366l	554l	442l	105l
82 University of Georgia	1,342	1,652	1,826	1,574	0	487	855	0
83 Wentworth Inst of Tech	1,287	1,460	1,435	1,383	1,287	0	0	0
84 Oregon Grad Inst Sci/Tech	1,273	1,251	1,406	1,595	497	0	0	776
85 Univ of Wis-Superior	1,243	1,402	1,550	1,495	0	0	0	1,243
86 Univ of Wis-Milwaukee	1,196	1,054	1,155	1,047	0	88	1,108	0
87 Univ of North Dakota	1,086	2,153	2,704	2,874	1,042	18	0	26
88 University of Idaho	1,028	624	998	653	0	663	0	365
89 Univ of Sthrn Mississippi	1,003	568	401	430	0	179	824	0
90 Colorado School of Mines	948	368	162	484	0	900	0	48
Total, 1st 90 insts.	754,757	661,116	642,150	611,448	138,376	214,786	301,677	99,918
91 University of New Mexico	895	937	802	788	315	580	0	0
92 Univ of Cal Davis	858	732	996	626	0	858	0	0
93 University of Kansas	848	558	578	645	0	808	0	40
94 Michigan State University	844	783l	740	315	0	116	0	728
95 Old Dominion University	840	1,267	1,173	874	0	0	792	48
96 Nova University	823	1,089	1,035	878	0	0	823	0
97 Indiana University	806	454	322	394	0	806	0	0
98 Univ of P R-Mayaguez	798l	1,024l	1,251	1,067	0l	505l	291l	0l
99 Memphis State University	730	688	622	504	0	730	0	0
100 Univ of Texas at El Paso	705	431	556	163	0	705	0	0
Total, 1st 100 insts.	762,902	669,059	650,223	617,702	138,691	219,894	303,583	100,734
Total, all other sampled insts.	23,038	25,103	26,056	28,660	2,209	14,331	1,709	4,789
Estimated total non-sampled insts.	13,244	13,682	14,553	14,390	5,862	1,787	5,572	22

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
l = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-56. Total and federally financed R&D expenditures in the mathematical sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	247,092	230,178	221,026	214,000	182,725	170,064	159,580	156,459
1 Johns Hopkins Univ	27,603	29,877	33,545	35,960	27,576	29,800	33,475	35,870
2 Rutgers the St Univ of NJ	9,035	8,993	8,479	6,114	5,393	5,182	4,658	2,345
3 University of Washington	6,882	6,383	6,247	5,436	6,554	5,910	5,772	4,902
4 Boston College	5,968	5,188	3,649	2,500	4,896	4,497	3,065	2,372
5 George Washington Univ	5,955	5,898	5,552	5,260	5,712	5,590	5,161	5,064
6 University of Minnesota	5,392	5,731	4,719	4,704	4,542	4,525	3,969	4,013
7 Brown University	4,905	3,617	4,260	5,455	3,487	2,820	3,823	4,720
8 Univ of Cal Berkeley	4,760	4,804	3,983	3,911	4,518	4,568	3,612	3,337
9 Iowa St U of Sci & Tech	4,743	4,547	4,082	4,184	1,785	1,594	1,465	1,631
10 Univ of MD College Park	4,578	2,569	8,936	7,956	1,250	1,611	1,716	1,562
Total, 1st 10 insts.	79,821	77,607	83,452	81,480	65,713	66,097	66,716	65,816
11 Princeton University	4,462	4,344	2,768	3,320	3,693	3,556	1,976	2,196
12 Cornell University	4,192	5,903	5,819	5,194	3,907	4,509	4,557	3,930
13 N C State Univ at Raleigh	4,026	3,956	3,203	3,091	1,193	1,305	1,258	1,208
14 Univ of Cal Los Angeles	3,814	3,732	3,456	3,009	3,718	3,568	3,323	2,899
15 Stanford University	3,504	2,955	3,001	2,900	2,783	2,488	2,672	2,602
16 SUNY at Stony Brook	3,458	2,566	2,166	1,513	2,351	1,743	1,425	1,014
17 Univ of Wis-Madison	3,433	3,683	3,905	3,619	2,239	2,446	2,668	2,390
18 Mass Inst of Technology	3,253	2,346	2,354	2,300	2,720	2,150	2,245	2,215
19 Purdue University	3,145	2,544	2,353	1,967	1,748	1,868	1,820	1,695
20 New York University	3,053	3,528	4,065	4,824	2,701	3,239	3,655	4,422
Total, 1st 20 insts.	116,161	113,164	116,542	113,217	92,466	92,969	92,315	90,387
21 University of Michigan	3,008	3,192	2,454	1,646	1,909	1,976	1,745	1,392
22 Univ of Ill Chicago	2,969	1,959	1,904	1,657	1,723	1,366	1,370	1,229
23 Carnegie-Mellon Univ	2,917	1,622	1,766	1,922	2,339	1,560	1,499	1,671
24 Boston University	2,490	1,331	646	528	2,464	1,331	537	433
25 Ohio State University	2,479	2,114	1,665	1,393	1,801	1,515	1,346	1,169
26 UT MD Anderson Cancer Ctr	2,476	2,483	2,358	2,265	1,078	1,012	1,047	1,019
27 Pennsylvania State Univ	2,377	2,462	2,104	1,725	1,761	1,649	1,372	1,118
28 Harvard University	2,338	2,398	2,080	2,174	2,291	2,262	2,049	1,773
29 University of Arizona	2,313	2,259	1,762	1,850	1,642	1,764	1,386	1,509
30 Univ of Southern Cal	2,224	1,444	1,214	1,054	2,095	1,393	828	841
Total, 1st 30 insts.	141,752	134,628	134,475	129,431	111,569	108,797	105,494	102,541
31 University of Georgia	2,207	2,163	2,170	1,729	323	247	277	355
32 Georgia Institute of Tech	2,162	2,244	1,365	1,046	1,215	1,288	769	587
33 University of Florida	2,088	1,892	1,948	1,994	1,447	1,405	1,216	1,427
34 Rice University	2,049	1,508	1,349	1,192	1,982	1,482	1,309	1,155
35 US Naval Postgrad School	2,042	609	401	722	2,028	577	401	722
36 Clemson University	1,969	1,729	1,674	1,850	789	449	431	592
37 University of Chicago	1,946	1,872	1,913	1,912	1,769	1,652	1,541	1,486
38 VA Polytech Inst & St U	1,942	1,894	2,406	2,374	903	906	1,176	1,371
39 Univ of Cal San Diego	1,897	1,631	1,541	1,553	1,848	1,509	1,478	1,525
40 University of Ill Urbana	1,888	2,422	2,227	2,242	1,112	1,651	1,378	1,490
Total, 1st 40 insts.	161,742	152,582	151,469	146,045	124,985	119,963	115,470	113,251
41 Yale University	1,849	1,926	1,421	1,279	1,461	1,785	1,279	1,138
42 University of Utah	1,570	1,191	1,161	1,070	1,354	1,064	967	847
43 Univ of Mass - Amherst	1,543	--	--	--	1,200	--	--	--
44 Florida State University	1,528	2,160	3,405	3,312	1,281	1,299	1,842	1,222
45 Rensselaer Polytech Inst	1,521	1,256	1,473	1,523	729	586	717	751
46 University of Connecticut	1,495	747	848	711	460	477	397	394
47 Oregon State University	1,484	1,064	847	676	1,106	731	448	469
48 Univ of NC at Chapel Hill	1,479	1,600	1,328	1,492	1,241	1,424	1,233	1,462
49 University of Virginia	1,477	1,506	1,173	1,216	1,173	1,243	959	964
50 Louisiana State Univ Sys	1,420	2,081	1,315	2,562	386	475	289	224
Total, 1st 50 insts.	176,908	166,113	164,440	159,886	135,336	129,047	123,401	120,722

See explanatory information and SOURCE at end of table.

Table B-56. Total and federally financed R&D expenditures in the mathematical sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 Washington University	1,374	1,090	947	972	1,247	991	881	832
52 Univ. of Colorado	1,354	1,198	1,188	1,017	1,240	1,110	1,132	990
53 Univ of South Carolina	1,270	813	979	577	683	607	494	371
54 Indiana University	1,262	1,255	1,102	1,236	742	698	812	751
55 Univ of Texas at Austin	1,258	1,185	890	947	910	789	645	651
56 Univ of Pennsylvania	1,122	900	1,013	750	1,107	811	892	741
57 University of Wyoming	1,119	401	663	817	282	367	608	801
58 Univ of Cal Santa Barbara	1,118	882	905	1,232	679	455	682	937
59 Loyola Univ - Chicago	1,087	431	101	65	1,023	431	55	54
60 University of Dayton	1,080	1,107	692	259	1,071	1,082	637	216
Total, 1st 60 insts.	188,952	175,375	172,920	167,758	144,320	136,388	130,239	127,066
61 Texas A & M University	1,046	1,252	1,400	1,187	895	1,140	1,156	1,041
62 University of Oklahoma	1,028	982	857	586	185	234	232	205
63 Univ. Of Tennessee System	1,011	829	686	820	552	349	333	472
64 Arizona State University	999	1,135	728	569	667	580	461	433
65 Columbia Univ Main Div	980	970	1,043	1,164	980	941	1,042	1,127
66 Colorado State University	950	503	626	409	604	336	448	312
67 Hampton University	916	415	159	133	916	415	159	133
68 Wesleyan University	911	546i	648i	584	734	95i	127i	144
69 Univ of Ark Fayetteville	902	1,008	893	750	171	178	213	138
70 George Mason University	873	937	3	46	873	522	3	40
Total, 1st 70 insts.	198,568	183,952	179,943	174,006	150,877	141,178	134,413	131,111
71 California Inst of Tech	853	926	849	623	841	915	836	604
72 Duke University	846	636	597	524	761	530	502	454
73 Clark Atlanta University	841	0	43i	40i	775	0	43i	40i
74 Univ Alabama Huntsville	828	1,456	1,576	1,472	464	1,002	1,009	934
75 Dartmouth College	789	749	459e	367	685	541	267i	242
76 University of Pittsburgh	787	817	797	858	658	727	582	685
77 Drexel University	780	742	673	535	122	90	108	78
78 Northwestern University	777	855	973	736	721	642	786	655
79 Kans St U - Ag & App Sci	763	476	512	438	143	71	189	109
80 Univ of Cal Riverside	762	664	654	682	421	349	324	347
Total, 1st 80 insts.	206,594	191,273	187,076	180,281	156,468	146,045	139,019	135,259
81 Colorado School of Mines	736	845	724	802	296	503	518	503
82 The University of Alabama	730	787	761	571	10	39	60	32
83 University of Iowa	730	882	782	833	523	609	402	536
84 University of Akron	726	528	347	347	446	287	254	176
85 Univ of North Texas	719	450	329	282	224	179	83	98
86 U of Houston	655	677	908	835	393	419	478	486
87 University of Delaware	654	573	548	546	564	445	415	433
88 Tulane University	649	327	394	577	270	182	188	400
89 San Diego State Univ	619	511	280	520	397	369	98	329
90 Washington State Univ	606	520	504	486	416	295	339	367
Total, 1st 90 insts.	213,418	197,373	192,653	186,080	160,007	149,372	141,854	138,621
91 Montana State University	594	305	165	116	388	177	73	22
92 Univ of Southwestern LA	593	529	426	435	0	9	30	75
93 University of Kentucky	567	345	373	505	541	315	334	476
94 U of MD Baltimore County	558	585	523	423	558	585	519	406
95 Michigan State University	538	504i	478	780	427	398i	374	585
96 Brandeis University	533	580	591	555	500	526	535	487
97 Northeastern University	492	376	353	309	492	343i	352	272
98 University of Montana	485	170	23	119	430	116	0	92
99 Univ of Cal Davis	474	621	499	713	438	472	426	571
100 SUNY at Buffalo	465	529	364	336	272	287	249	216
Total, 1st 100 insts.	218,717	201,897	196,448	190,351	164,053	152,578	144,746	141,823
Total, all other sampled insts.	23,432	23,333	21,543	21,002	15,547	14,909	13,553	13,206
Estimated total non-sampled insts.	4,943	4,940	3,035	2,647	3,125	2,577	1,281	1,430

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-57. Total and federally financed R&D expenditures in the computer sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	555,572	553,593	513,838	472,190	377,434	369,082	340,053	322,480
1 Johns Hopkins Univ	59,217	57,525	63,497	68,832	59,003	57,397	63,383	68,748
2 Carnegie-Mellon Univ	48,123	45,090	44,808	45,946	36,311	33,342	33,951	32,412
3 Univ of Southern Cal	33,525	32,816	30,718	32,092	30,763	30,476	27,705	28,850
4 Cornell University	23,043	21,291	21,327	16,325	18,987	17,450	17,457	12,433
5 University of Michigan	21,469	10,453	7,688	6,491	13,865	6,347	2,941	3,395
6 University of Ill Urbana	19,575	18,067	17,457	14,721	9,733	8,836	9,184	7,291
7 Georgia Institute of Tech	18,309	17,077	15,295	17,522	10,288	9,805	8,624	9,836
8 Mass Inst of Technology	13,153	13,617	12,343	11,303	9,472	9,167	8,858	8,447
9 Univ of Texas at Austin	13,096	14,460	9,653	10,479	5,778	5,172	1,852	3,456
10 University of Minnesota	12,999	25,186	11,721	1,965	10,631	22,705	8,584	989
Total, 1st 10 insts.	262,509	255,582	234,507	225,676	204,811	200,697	182,539	175,857
11 Syracuse University	9,847	9,379	10,351	8,776	2,412	2,299	5,211	4,287
12 Stanford University	9,843	9,016	10,582	12,752	7,519	7,278	9,247	11,397
13 Univ. Of Tennessee System	9,015	6,130	2,655	1,523	7,014	4,037	1,427	1,194
14 Univ of Cal San Diego	8,902	8,170	7,202	5,521	4,848	3,693	2,985	2,483
15 Univ of MD College Park	8,218	6,569	9,240	8,054	3,441	3,423	2,875	2,212
16 Univ of Mass - Amherst	7,974	--	--	--	5,359	--	--	--
17 New York University	7,809	7,029	6,903	8,179	6,753	6,092	6,286	7,049
18 Univ of NC at Chapel Hill	7,707	7,569	6,636	6,563	4,112	4,492	4,187	4,040
19 Rice University	7,270	8,753	5,369	3,030	5,281	7,222	5,046	2,511
20 Ohio State University	6,857	7,076	5,658	814	1,340	974	843	574
Total, 1st 20 insts.	345,951	325,273	299,103	280,888	252,890	240,207	220,646	211,604
21 Univ of Pennsylvania	6,572	6,904	7,970	7,415	5,572	6,139	6,114	5,163
22 University of Utah	6,333	3,500	2,896	2,920	5,119	2,386	1,804	2,148
23 SUNY at Buffalo	6,258	4,199	3,128	2,272	5,274	3,238	1,986	1,231
24 Iowa St U of Sci & Tech	6,116	9,245	4,232	4,419	1,881	5,076	80	40
25 West Virginia University	5,969	9,829	10,211	4,544	2,681	128	359	413
26 Washington University	5,358	4,833	4,361	3,355	3,407	2,385	2,591	2,481
27 Univ of Wis-Madison	4,993	4,454	3,966	4,912	3,652	3,146	2,979	4,034
28 California Inst of Tech	4,676	4,793	3,347	3,458	4,331	4,091	2,542	2,428
29 Rutgers the St Univ of NJ	4,566	4,298	4,310	3,164	1,707	1,704	1,731	1,522
30 Yale University	4,172	3,402	5,899	8,085	3,718	2,937	5,045	7,110
Total, 1st 30 insts.	400,964	380,730	349,423	325,412	290,232	271,437	245,877	238,174
31 Northwestern University	4,171	3,374	2,043	709	2,584	1,604	636	339
32 Brown University	4,084	3,686	5,029	4,592	2,614	1,600	2,316	1,950
33 University of Oklahoma	3,969	4,252	1,587	926	2,438	2,610	522	276
34 Univ of Cal Los Angeles	3,902	3,608	3,938	3,622	3,080	2,273	2,618	1,989
35 University of Georgia	3,836	3,908	3,383	3,480	1,644	2,035	1,802	2,154
36 Univ of Cal Irvine	3,803	3,820	3,863	2,882	3,042	2,814	3,140	2,303
37 Univ of Southwestern LA	3,767	2,873	2,507	2,435	440	399	255	132
38 Texas A & M University	3,694	5,047	4,075	2,805	1,337	1,440	1,787	1,379
39 Purdue University	3,393	3,353	3,033	3,177	2,376	2,569	2,375	2,611
40 Univ of Cal Santa Barbara	3,387	2,558	1,591	1,128	2,666	1,974	1,206	837
Total, 1st 40 insts.	438,970	417,209	380,472	351,168	312,453	290,755	262,534	252,144
41 Columbia Univ Main Div	3,338	3,936	3,419	3,882	2,456	3,108	2,523	2,742
42 Princeton University	3,184	3,759	4,293	4,016	1,736	2,371	2,842	3,165
43 University of Arizona	2,945	2,919	2,496	2,491	1,587	1,740	1,724	1,857
44 University of Washington	2,942	2,250	2,936	2,820	2,696	2,082	2,777	2,801
45 US Naval Postgrad School	2,878	1,421	1,243	1,732	2,878	1,421	1,234	1,713
46 Worcester Poly Institute	2,825	289	170	157	2,538	96	105	130
47 University of Florida	2,792	2,387	2,533	1,406	1,377	1,275	1,207	419
48 New Mexico State Univ	2,771	8,357	9,658	8,154	2,398	6,388	8,590	7,172
49 Univ. of Colorado	2,754	4,027	3,010	2,935	1,774	2,692	2,282	1,823
50 Univ Alabama Huntsville	2,743	2,789	2,738	2,928	1,745	1,805	1,558	1,837
Total, 1st 50 insts.	468,142	449,343	412,968	381,689	333,640	313,733	287,376	275,803

See explanatory information and SOURCE at end of table.

Table B-57. Total and federally financed R&D expenditures in the computer sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 University of Virginia	2,715	2,769	2,729	2,756	1,897	2,027	2,132	2,198
52 George Mason University	2,410	1,376	688	535	2,220	1,135	255	76
53 Oregon Grad Inst Sci/Tech	2,409	1,888	1,672	1,645	1,651	1,478	1,577	1,471
54 University of Connecticut	2,196	1,807	1,747	1,386	0	116	148	196
55 Univ of Cal Berkeley	2,183	1,651	1,331	511	491	491	287	137
56 SUNY at Stony Brook	2,019	1,570	1,501	1,699	1,376	1,045	1,137	1,322
57 University of Rochester	1,826	1,521	1,897	2,630	1,674	1,402	1,725	2,096
58 Pennsylvania State Univ	1,755	1,408	1,449	1,135	707	734	837	685
59 Southern Ill U-Carbondale	1,722	2,214	1,977	2,444	21	30	0	0
60 University of Delaware	1,663	1,448	1,340	1,387	1,224	1,129	1,033	1,154
Total, 1st 60 insts.	489,040	466,995	429,299	397,817	344,901	323,320	296,507	285,138
61 Clemson University	1,644	4,691	5,018	4,003	482	696	661	1,583
62 Arizona State University	1,629	1,133	1,436	1,110	472	619	561	833
63 San Diego State Univ	1,572	1,449	1,396	1,291	836	893	1,004	1,123
64 New York Inst Technology	1,485i	1,396i	1,486	2,239i	0i	0i	0	0i
65 Duke University	1,455	1,760	2,099	1,697	990	1,264	1,786	1,509
66 Rensselaer Polytech Inst	1,425	1,593	2,185	1,515	682	743	1,063	747
67 Univ of Nevada, Las Vegas	1,413	11,141	7,134i	4,826i	694	11,133	7,131i	4,822i
68 Northeastern University	1,405	1,318	824	562	1,367	758i	778	562
69 University of Chicago	1,318	956	1,009	631	1,266	941	970	611
70 N C State Univ at Raleigh	1,306	1,858	1,570	1,423	636	922	825	790
Total, 1st 70 insts.	503,690	494,290	453,456	417,114	352,326	341,289	311,286	297,718
71 Air Force Inst of Tech	1,305	699	634	535i	1,305	699	634	535i
72 Southern U - All Campuses	1,175	849	499i	345	1,062	749	307i	190
73 University of Iowa	1,075	1,222	963	1,153	83	32	101	175
74 Univ of Nebraska-Lincoln	1,060	1,177	1,140	964	391	506	388	359
75 University of Pittsburgh	1,041	1,055	876	556	828	537	554	317
76 Georgetown University	983	980	1,114	660	738	798	856	481
77 Clark Atlanta University	969	0	44i	40i	827	0	44i	40i
78 Univ of Missouri Kan City	921	1,289	1,439	1,502	0	0	0	0
79 Oregon State University	920	937	858	537	358	347	289	168
80 Univ of Cal Santa Cruz	916	712	493	313	859	468	349	252
Total, 1st 80 insts.	514,055	503,210	461,516	423,719	358,777	345,425	314,808	300,235
81 Wayne State University	885	851	209	450	193	40	16	91
82 Univ of Hawaii-Manoa	880	198	798	88	720	175	793	86
83 Univ of Tex at Arlington	859	850	460	339	136	152	100	124
84 Florida Atlantic Univ	854	776	51	16	64	88	0	0
85 Indiana University	848	1,259	1,600	1,391	590	889	1,313	1,189
86 North Dakota State Univ	808	433	253	238	446	79	76	80
87 Old Dominion University	797	755	839	546	577	499	617	294
88 VA Polytech Inst & St U	779	736	1,032	824	386	297	342	226
89 Louisiana State Univ Sys	778	280	639	930	118	91	37	55
90 Drexel University	766	169	324	340	128	5	50	65
Total, 1st 90 insts.	522,269	509,517	467,721	428,881	362,135	347,740	318,152	302,445
91 SUNY at Albany	741	650	630	452	479	371	462	319
92 University of Oregon	731	518	563	997	331	336	470	719
93 Univ of Texas at El Paso	725	427	311	101	638	422	299	79
94 Univ of Central Florida	695	724	671	436	514	497	388	236
95 Florida State University	694	364	721	944	254	31	102	160
96 Rockefeller University	691	276	585	653	0	0	0	10
97 Texas Tech University	681	527	546	350	94	8	0	20
98 University of New Mexico	679	394	319	202	151	69	0	0
99 Wright State University	632	975	1,028	0	279	603	662	0
100 Western Michigan Univ	610	148	48	23i	467	99	47	23i
Total, 1st 100 insts.	529,168	514,520	473,143	433,039	365,342	350,176	320,582	304,011
Total, all other sampled insts.	20,804	34,740	36,494	35,183	10,058	17,223	18,074	16,749
Estimated total non-sampled insts.	5,600	4,333	4,201	3,968	2,034	1,683	1,397	1,720

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-58. R&D expenditures in the life sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Life sciences total				1992 subfields			
	1992	1991	1990	1989	Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
Total, all institutions	10,227,816	9,495,977	8,748,152	8,081,805	1,511,943	3,318,933	4,967,380	429,560
1 Univ of Cal San Francisco	295,784	268,700	238,278	219,446	0	0	295,784	0
2 Johns Hopkins Univ	226,247	222,541	208,607	180,099	0	58,220	131,339	36,688
3 University of Minnesota	224,221	222,512	204,590	187,347	48,107	38,860	130,983	6,271
4 Univ of Wis-Madison	202,187	187,200	178,337	165,141	25,586	65,329	107,226	4,046
5 University of Michigan	195,922	191,582	162,379	143,184	132	59,995	119,825	15,970
6 University of Washington	192,469	172,710	152,755	136,184	7,035	62,627	107,541	15,266
7 Univ of Cal Davis	183,504	178,466	177,754	162,623	93,877	31,133	58,474	20
8 Univ of Cal Los Angeles	170,979	157,174	157,626	144,933	0	19,015	148,278	3,686
9 Baylor Col of Medicine	167,998	161,084	155,122	134,681	0	84,799	83,199	0
10 Yale University	167,790	153,527	143,093	132,778	1,137	61,965	104,688	0
Total, 1st 10 insts.	2,027,101	1,915,496	1,778,541	1,606,416	175,874	481,943	1,287,337	81,947
11 Cornell University	163,950	171,008	166,595	163,640	37,262	34,944	83,599	8,145
12 Univ of Pennsylvania	158,321	143,981	132,599	117,746	6	36,905	121,410	0
13 Harvard University	157,253	144,264	136,522	127,771	12	75,582	75,996	5,663
14 Stanford University	155,678	138,735	136,087	129,352	0	9,941	145,394	343
15 Duke University	151,282	133,314	111,309	102,646	2,986	36,000	110,685	1,631
16 Washington University	149,515	141,528	133,337	111,638	0	63,294	83,523	2,698
17 Univ of Cal San Diego	141,979	129,711	111,314	99,224	0	13,110	128,869	0
18 University of Pittsburgh	127,935	104,112	90,285	84,583	0	2,681	100,885	24,369
19 Columbia Univ Main Div	127,113	119,235	113,392	100,063	0	54,395	72,375	343
20 Texas A & M University	122,997	111,045	106,885	102,993	45,772	72,275	4,950	0
Total, 1st 20 insts.	3,483,124	3,252,429	3,016,866	2,746,072	261,892	881,070	2,215,023	125,139
21 Univ of NC at Chapel Hill	120,223	107,075	92,270	91,710	0	55,941	54,404	9,878
22 Univ of Cal Berkeley	118,846	104,359	87,951	83,990	47,063	34,212	37,507	64
23 University of Georgia	116,753	114,576	111,742	103,667	55,371	47,642	13,740	0
24 Univ Alabama Birmingham	111,432	106,472	104,185	94,157	0	38,067	72,389	976
25 Univ of MD Balt Prof Sch	107,830	100,163	83,689	75,854	0	16,175	86,264	5,391
26 Ohio State University	106,349	97,522	89,335	91,583	32,752	35,477	35,416	2,704
27 UT MD Anderson Cancer Ctr	105,873	102,322	84,819	80,032	0	44,150	61,723	0
28 University of Arizona	105,187	97,583	82,443	75,080	31,089	31,821	37,778	4,499
29 UT SW Medical Ctr-Dallas	102,263	94,511	85,919	79,920	0	44,187	58,076	0
30 New York University	95,774	87,436	84,854	76,883	0	34,377	44,960	16,437
Total, 1st 30 insts.	4,573,654	4,264,448	3,924,073	3,598,948	428,167	1,263,119	2,717,280	165,088
31 Univ of Southern Cal	95,233	87,695	83,858	82,906	0	4,342	90,762	129
32 University of Iowa	94,968	86,388	82,386	78,000	0	22,193	71,676	1,099
33 Louisiana State Univ Sys	90,969	80,166	83,104	73,805	41,110	31,650	18,066	143
34 Pennsylvania State Univ	90,125	86,055	83,743	74,665	34,594	36,334	16,620	2,577
35 Emory University	89,463	82,778	74,880	58,197	0	19,616	51,101	18,746
36 University of Rochester	87,647	89,004	85,078	80,283	0	30,484	52,490	4,673
37 University of Florida	87,227	83,456	81,616	73,051	24,265	23,846	34,611	4,505
38 Yeshiva University	87,196	86,721	83,968	74,488	0	22,671	45,342	19,183
39 Univ of Med & Dent of N J	84,505	50,787	71,789	54,451	0	28,264	56,241	0
40 Univ. of Colorado	84,498	75,074	75,398	72,885	0	27,973	52,830	3,695
Total, 1st 40 insts.	5,465,485	5,102,572	4,729,891	4,321,677	528,136	1,510,492	3,207,019	219,838
41 Case Western Reserve Univ	82,364	71,887	60,411e	54,525	0	51,811	30,553	0
42 Michigan State University	81,787	76,581	73,035	73,509	49,432	23,111	8,518	726
43 University of Chicago	79,388	77,698	79,769	74,047	0	30,780	47,513	1,095
44 SUNY at Buffalo	78,580	69,283	66,568	65,589	0	39,157	35,465	1,958
45 N C State Univ at Raleigh	76,021	73,215	71,258	71,026	40,245	34,018	0	1,758
46 CUNY Mt Sinai Sch of Med	75,561	68,310	63,752	56,856	0	16,703	58,858	0
47 Univ of Ill Chicago	75,258	64,725	59,462	58,061	0	21,096	44,637	9,525
48 Vanderbilt University	75,026	59,736	57,246	48,996	0	36,758	32,650	5,618
49 University of Connecticut	73,136	75,544	73,863	69,134	7,265	25,706	39,312	853
50 University of Miami	71,815	70,868	68,395	67,952	0	15,212	56,568	35
Total, 1st 50 insts.	6,232,421	5,808,417	5,403,650	4,961,372	625,078	1,804,844	3,561,093	241,406

See explanatory information and SOURCE at end of table.

Table B-58. R&D expenditures in the life sciences at universities and colleges: fiscal years 1983-92

[Dollars in thousands]

Institution ranking	Life sciences total				1992 subfields			
	1992	1991	1990	1989	Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
51 Iowa St U of Sci & Tech	71,224	62,329	65,403	56,107	34,288	27,103	6,937	2,896
52 Univ of Missouri Columbia	71,032	72,022	66,038	57,910	30,376	22,783	17,447	426
53 Northwestern University	70,979	79,551	74,268	66,589	0	32,319	35,054	3,606
54 Rutgers the St Univ of NJ	69,760	64,588	59,183	54,452	20,206	34,624	10,525	4,405
55 Purdue University	69,657	70,314	66,601	60,119	23,316	36,240	8,822	1,279
56 Indiana University	69,349	62,685	55,502	48,378	0	20,054	47,243	2,052
57 University of Utah	69,005	60,708	55,460	49,974	0	25,383	41,530	2,092
58 Rockefeller University	67,004	64,552	62,718	63,371	0	61,651	5,353	0
59 University of Kentucky	65,787	58,612	51,789	49,192	31,730	1,166	30,258	2,633
60 U Tex Hlth Sci Ctr S Anto	65,179	51,768	45,663	42,501	0	20,445	44,734	0
Total, 1st 60 insts.	6,921,397	6,455,546	6,006,275	5,509,965	764,994	2,086,612	3,808,996	260,795
61 Virginia Commonwith Univ	64,331	61,605	58,528	49,466	0	22,424	40,892	1,015
62 Univ. Of Tennessee System	64,064	63,634	60,690	60,877	21,964	18,037	21,253	2,830
63 Oregon State University	62,669	57,612	51,442	51,912	32,292	18,082	2,862	9,433
64 Univ of MD College Park	62,624	72,859	19,554	19,742	29,941	29,017	0	3,666
65 Univ of Nebraska-Lincoln	60,593	59,898	55,349	49,093	49,273	5,673	5,641	6
66 University of Virginia	60,441	50,807	51,023	42,708	0	22,787	37,474	180
67 Univ of Cal Irvine	59,902	55,419	53,261	44,441	0	30,455	29,447	0
68 Unif Serv Univ of Hlth Sc	59,171	47,096	36,080	27,062	0	19,135	40,036	0
69 Boston University	58,315	53,665	54,067	50,721	0	2,897	53,937	1,481
70 University of Ill Urbana	58,097	51,838	49,898	48,881	28,792	21,637	7,668	0
Total, 1st 70 insts.	7,531,624	7,029,979	6,496,167	5,954,868	927,256	2,276,756	4,048,206	279,406
71 U Tex Med Brnch Galveston	57,672	45,086	40,610	38,717	0	15,047	23,928	18,697
72 Wayne State University	56,634	49,221	43,871	40,433	0	921	50,787	4,926
73 Washington State Univ	56,626	51,727	46,456	38,711	26,543	25,944	2,536	1,603
74 U Tex Hlth Sci Ctr Houstn	55,900	53,402	44,345	44,893	0	17,030	36,347	2,523
75 University of Cincinnati	55,123	54,707	51,495	48,512	0	30,723	24,400	0
76 Georgetown University	54,878	50,375	41,120	43,272	0	14,553	40,325	0
77 Univ of Mass - Worcester	53,342	--	--	--	0	22,424	30,918	0
78 Tulane University	53,194	55,581	46,411	38,787	0	7,961	22,810	22,423
79 SUNY at Stony Brook	52,657	46,642	40,081	38,408	0	29,064	22,419	1,174
80 VA Polytech Inst & St U	51,855	52,164	52,477	47,777	38,668	10,098	2,211	878
Total, 1st 80 insts.	8,079,505	7,488,884	6,903,033	6,334,378	992,467	2,450,521	4,304,887	331,630
81 Univ of Cal Riverside	49,488	49,362	47,431	45,750	43,151	4,401	1,936	0
82 Wake Forest University	48,901	43,223	38,636	36,534	0	496	48,405	0
83 Oregon Hlth Sciences Univ	47,684	40,272	40,070	33,929	0	12,657	33,082	1,945
84 U of VT & State Agr Coll	45,533	42,285	41,009	37,781	5,459	17,001	21,256	1,817
85 Colorado State University	44,617	39,548	36,345	30,975	19,378	24,183	954	102
86 Medical College of Wis	43,579	40,446	34,622	34,951	0	12,638	30,941	0
87 Dartmouth College	43,070	35,637	33,439	28,579	0	1,211	41,706	153
88 University of Kansas	42,582	37,315	32,597	29,894	0	25,060	14,042	3,480
89 Univ of South Florida	42,200	44,554	40,589	31,204	0	1,437	40,481	282
90 Kans St U - Ag & App Sci	41,541	39,863	37,289	35,441	32,176	8,338	1,027	0
Total, 1st 90 insts.	8,528,700	7,901,389	7,285,060	6,679,416	1,092,631	2,557,943	4,538,717	339,409
91 Thomas Jefferson Univ	41,329	33,066	30,969	29,405	0	19,940	18,666	2,723
92 Auburn University	40,969	40,774	40,638	33,627	27,409	7,646	3,051	2,883
93 Tufts University	40,966	38,493	37,300	40,168	0	34,910	5,228	828
94 University of Oklahoma	40,591	34,302	27,424	24,853	0	13,012	19,416	8,163
95 Oklahoma State University	38,613	34,743	32,289	29,247	23,980	11,078	3,363	192
96 Mass Inst of Technology	38,101	34,398	37,711	34,322	0	38,101	0	0
97 Clemson University	37,240	34,752	34,611	28,864	25,104	9,323	740	2,073
98 SUNY Hlth Sci Ctr - Brkln	37,071	32,824	22,873	20,523	0	6,705	25,040	5,326
99 Mississippi State Univ	36,247	36,510	36,357	35,502	32,912	2,564	771	0
100 Temple University	34,144	38,985	37,121	34,089	4	17,270	16,791	79
Total, 1st 100 insts.	8,913,991	8,260,236	7,622,353	6,990,016	1,202,040	2,718,492	4,631,783	361,676

See explanatory information and SOURCE at end of table.

Table B-58. R&D expenditures in the life sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Life sciences total				1992 subfields			
	1992	1991	1990	1989	Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
101 University of New Mexico	33,502	29,881	27,115	25,353	0	18,673	9,021	5,808
102 Med Univ of S. Carolina	31,900	25,877	23,128	23,017	0	11,037	20,756	107
103 U of Neb Med Ctr at Omaha	31,564	27,858	17,844	17,291	0	20,737	10,827	0
104 University of Idaho	29,427	24,828	22,172	21,398	26,361	2,815	251	0
105 Univ of Hawaii-Manoa	28,153	27,060	22,662	20,602	10,523	9,346	1,822	6,462
106 Loyola Univ - Chicago	27,683	21,229	10,236	9,299	0	7,266	16,844	3,573
107 Univ of Ark Fayetteville	26,812	24,756	22,032	19,596	24,867	1,945	0	0
108 The Medical Col of Penna	25,835	24,645	18,643	20,542	0	14,062	11,773	0
109 West Virginia University	25,486	23,283	21,707	21,601	11,354	1,129	10,544	2,459
110 California Inst of Tech	24,954	26,275	24,857	23,012	0	24,954	0	0
Total, 1st 110 insts.	9,199,307	8,515,928	7,832,749	7,191,727	1,275,145	2,830,456	4,713,621	380,085
111 North Dakota State Univ	24,045	19,130	7,865	6,866	17,412	6,299	334	0
112 Rush University	24,000	25,341	20,363	21,213	0	5,026	17,990	984
113 Utah State University	23,233	22,247	21,760	21,746	14,947	5,497	2,789	0
114 Univ of P R-Mayaguez	22,800i	24,985i	27,165	26,522	22,675i	125i	0i	0i
115 Montana State University	22,634	20,272	18,593	17,204	15,264	7,030	0	340
116 Medical Col of Georgia	21,426	12,082	12,052	11,363	0	12,067	8,934	425
117 New Mexico State Univ	20,452	18,183	19,797i	17,488	12,800	7,481	171	0
118 Brown University	19,652	17,979	17,654	16,113	0	2,050	15,307	2,295
119 Univ of Texas at Austin	19,472	18,726	19,785	18,367	0	12,044	5,005	2,423
120 SUNY at Albany	19,373	2,844	2,928	2,886	0	16,346	69	2,958
Total, 1st 120 insts.	9,416,394	8,697,717	8,000,711	7,351,295	1,358,243	2,904,421	4,764,220	389,510
121 St Louis University	19,222	18,493	16,083	13,664	0	9,203	10,012	7
122 Texas Tech University	18,149	17,260	15,814	16,102	8,456	4,402	5,266	25
123 George Washington Univ	17,910	16,988	19,240	17,420	0	5,141	11,768	1,001
124 Hahnemann University	17,332	13,169	12,134	10,428	0	7,224	9,002	1,106
125 Univ of Alaska Fairbanks	16,880	16,908	17,454	15,080	7,762	9,118	0	0
126 New York Medical College	16,799	14,633	13,244	12,958	0	10,755	6,044	0
127 Florida A & M University	16,698	13,686	7,539e	8,240	8,156	7,721	305	516
128 Princeton University	16,684	18,513	17,597	15,272	0	16,684	0	0
129 Univ of Mass - Amherst	16,490	--	--	--	8,544	5,526	0	2,420
130 Univ of Nevada - Reno	16,328	11,816	11,364	9,916	7,223	7,351	1,134	620
Total, 1st 130 insts.	9,588,686	8,839,183	8,131,180	7,470,375	1,398,384	2,987,546	4,807,751	395,205
131 Brandeis University	16,177	15,608	14,303	13,244	0	16,177	0	0
132 U of Arkansas Med Sci Cam	15,889	14,250	11,898	10,834	0	6,131	9,758	0
133 Univ of South Carolina	15,603	15,674	15,119	12,659	0	4,837	8,366	2,600
134 University of Mississippi	14,250	15,195	14,649	13,904	0	6,096	8,154	0
135 University of Wyoming	13,987	12,558	12,216	12,352	9,279	3,860	848	0
136 SUNY Hlth Sci Ctr - Syrcs	13,896	14,564	14,401	31,125	0	8,459	5,437	0
137 Univ of P R-Med Sci Cmpus	13,685	11,014	6,293	6,528	0	0	13,685	0
138 San Diego State Univ	13,414	12,518	9,086	7,931	1,768	6,421	4,572	653
139 University of Louisville	12,968	12,762	12,027	5,760i	0	4,527	8,457	1,984
140 Carnegie-Mellon Univ	12,957	12,568	11,400	11,008	0	12,957	0	0
Total, 1st 140 insts.	9,731,712	8,975,894	8,252,572	7,595,720	1,409,431	3,056,811	4,865,028	400,442
141 Southern Ill U-Carbondale	12,708	12,578	12,853	12,260	3,634	3,703	5,061	310
142 Univ of Maine Orono	12,443	15,586	13,779	12,228	6,574	5,857	0	12
143 University of Delaware	11,595	10,762	9,093	8,884	10,426	1,169	0	0
144 Eastern VA Medical School	11,238	11,112	10,496	8,125	0	1,936	9,302	0
145 Med Col of Ohio at Toledo	10,905	9,353	7,159	6,809	0	7,096	2,854	955
146 Univ of South Alabama	10,789	11,205	10,229	9,774	15	8,378	2,193	203
147 Univ of Rhode Island	10,203i	9,796	9,817	9,537i	5,411i	1,933i	2,361i	498i
148 South Dakota State Univ	9,900	9,138	7,699	6,888	7,902	1,275	40	683
149 Albany Medical College	9,681	10,131	9,431	9,827	0	6,745	2,936	0
150 Howard University	9,534	6,508	10,259i	10,078i	0	1,237	7,308	989
Total, 1st 150 insts.	9,840,708	9,082,063	8,353,387	7,690,130	1,443,393	3,096,140	4,897,083	404,092
Total, all other sampled insts.	353,332	384,482	361,042	355,676	58,898	200,833	68,566	25,035
Estimated total non-sampled insts.	33,776	29,432	33,723	35,999	9,652	21,980	1,731	433

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-59. Federally financed R&D expenditures in the life sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Life sciences total				1992 subfields			
	1992	1991	1990	1989	Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
Total, all institutions	5,892,771	5,407,076	5,077,083	4,782,507	413,437	2,139,584	3,088,901	250,849
1 Univ of Cal San Francisco	202,283	190,936	175,257	159,906	0	0	202,283	0
2 Johns Hopkins Univ	184,460	177,528	163,223	142,388	0	45,860	108,987	29,613
3 University of Washington	157,375	137,829	125,284	110,463	4,263	55,943	84,810	12,359
4 Yale University	125,966	119,459	116,188	109,353	316	47,825	77,825	0
5 Harvard University	119,784	105,772	102,593	92,840	0	64,280	49,821	5,663
6 University of Michigan	118,810	117,241	103,528	95,794	125	39,694	69,515	9,476
7 Univ of Cal San Diego	116,557	105,192	90,706	82,372	0	12,078	104,479	0
8 Univ of Pennsylvania	115,035	107,024	96,957	87,977	0	30,733	84,302	0
9 Univ of Cal Los Angeles	113,800	105,228	104,102	102,229	0	14,712	96,756	2,332
10 University of Minnesota	112,873	102,774	97,634	96,625	9,609	25,256	73,889	4,119
Total, 1st 10 insts.	1,366,923	1,268,983	1,175,472	1,079,947	14,313	336,381	952,667	63,562
11 Columbia Univ Main Div	108,904	99,324	97,783	86,763	0	47,514	61,390	0
12 Washington University	108,721	99,744	93,531	84,052	0	45,149	61,727	1,845
13 Stanford University	107,453	102,844	111,727	104,921	0	6,924	100,289	240
14 Univ of Wis-Madison	103,548	95,697	93,184	88,857	9,329	35,055	57,132	2,032
15 University of Pittsburgh	101,585	82,844	72,720	65,851	0	1,748	81,203	18,634
16 Duke University	97,305	92,290	84,358	78,886	1,210	29,099	65,778	1,218
17 Univ of NC at Chapel Hill	88,104	81,066	72,374	73,117	0	41,102	41,502	5,500
18 Cornell University	86,116	84,208	84,922	79,348	9,263	18,804	53,489	4,560
19 Baylor Col of Medicine	85,734	78,752	75,793	69,336	0	55,140	30,594	0
20 Univ Alabama Birmingham	80,614	74,489	72,524	66,448	0	26,618	53,454	542
Total, 1st 20 insts.	2,335,007	2,160,241	2,034,388	1,877,526	34,115	643,534	1,559,225	98,133
21 Univ of Cal Davis	74,989	65,716	64,036	60,397	23,967	12,180	38,842	0
22 New York University	69,611	64,335	63,771	61,409	0	24,293	32,600	12,718
23 Yeshiva University	68,152	67,831	65,066	58,224	0	17,720	35,439	14,993
24 University of Rochester	66,543	71,066	69,149	64,950	0	26,358	37,367	2,818
25 University of Chicago	65,435	64,241	64,416	60,430	0	25,725	38,761	949
26 University of Iowa	63,937	59,198	58,187	57,204	0	16,577	47,133	227
27 Univ. of Colorado	63,928	56,353	54,616	54,135	0	21,672	39,870	2,386
28 Emory University	63,043	55,188	47,700	42,675	0	16,591	30,724	15,728
29 Vanderbilt University	62,685	54,887	52,674	44,539	0	31,752	26,042	4,891
30 Case Western Reserve Univ	62,411	55,712	50,890	47,224	0	38,220	24,191	0
Total, 1st 30 insts.	2,995,741	2,774,788	2,624,893	2,428,713	58,082	874,622	1,910,194	152,843
31 UT SW Medical Ctr-Dallas	61,499	57,746	54,965	51,254	0	28,470	33,029	0
32 Univ of Southern Cal	60,191	58,538	57,813	57,030	0	3,824	56,295	72
33 SUNY at Buffalo	57,144	50,923	49,673	50,830	0	33,380	22,334	1,430
34 University of Arizona	54,515	48,095	39,949	37,351	7,644	19,794	23,377	3,700
35 University of Miami	53,892	48,164	47,724	44,710	0	13,272	40,418	2
36 University of Utah	51,938	45,910	42,728	40,275	0	20,102	30,457	1,379
37 CUNY Mt Sinai Sch of Med	50,853	42,035	43,607	37,233	0	14,521	36,332	0
38 Ohio State University	49,873	45,090	42,490	40,523	8,134	20,684	20,573	502
39 Univ of Cal Berkeley	48,466	45,570	41,857	43,518	14,218	25,685	8,563	0
40 Univ of MD Balt Prof Sch	48,088	43,682	38,841	35,970	0	7,213	38,471	2,404
Total, 1st 40 insts.	3,532,000	3,260,541	3,084,540	2,867,407	88,078	1,061,547	2,220,043	162,332
41 Boston University	47,243	44,027	45,408	44,376	0	2,512	44,232	499
42 Pennsylvania State Univ	43,460	39,322	35,704	32,852	7,632	22,965	11,559	1,304
43 Virginia Commonwith Univ	43,290	42,929	39,440	33,324	0	16,637	26,117	536
44 University of Florida	43,203	39,875	36,453	34,902	8,920	14,725	17,146	2,412
45 Indiana University	41,786	36,076	33,223	33,482	0	13,182	27,409	1,195
46 U Tex Hlth Sci Ctr S Anto	41,048	32,770	29,431	29,324	0	15,326	25,722	0
47 University of Cincinnati	39,598	34,159	32,820	30,550	0	25,030	14,566	0
48 University of Georgia	39,128	34,728	34,431	32,523	9,982	26,841	2,305	0
49 Univ of Med & Dent of N J	39,092	38,768	33,185	27,983	0	13,160	25,932	0
50 Northwestern University	37,909	35,117	34,869	33,207	0	23,344	13,315	1,250
Total, 1st 50 insts.	3,947,755	3,638,312	3,439,504	3,199,930	114,612	1,235,269	2,428,346	169,528

See explanatory information and SOURCE at end of table.

Table B-59. Federally financed R&D expenditures in the life sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Life sciences total				1992 subfields			
	1992	1991	1990	1989	Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
51 Univ of Ill Chicago	36,923	33,316	32,058	32,438	0	12,217	22,269	2,437
52 Wake Forest University	36,886	32,811	29,671	28,334	0	161	36,725	0
53 University of Virginia	36,557	31,761	30,665	26,963	0	17,012	19,466	79
54 U Tex Hlth Sci Ctr Houstn	35,940	32,301	27,835	28,089	0	12,243	22,992	705
55 Univ of Mass - Worcester	35,413	--	--	--	0	16,746	18,667	0
56 Georgetown University	35,335	33,957	29,137	29,642	0	11,519	23,816	0
57 Tufts University	34,468	31,624	30,518	33,168	0	29,911	3,879	678
58 Michigan State University	34,266	31,781	30,013	27,682	15,505	14,573	3,881	307
59 SUNY at Stony Brook	33,866	30,230	27,702	25,910	0	19,694	13,498	674
60 University of Connecticut	33,685	34,516	32,658	34,893	909	13,281	19,343	152
Total, 1st 60 insts.	4,301,094	3,930,609	3,709,761	3,467,049	131,026	1,382,626	2,612,882	174,560
61 Rockefeller University	33,354	32,571	31,375	36,675	0	28,101	5,253	0
62 Univ of Cal Irvine	33,352	32,290	34,182	29,586	0	23,859	9,493	0
63 Mass Inst of Technology	33,345	33,289	32,758	29,782	0	33,345	0	0
64 Oregon Hlth Sciences Univ	32,210	27,744	26,154	23,197	0	9,892	20,744	1,574
65 Texas A & M University	31,859	23,178	20,262	22,469	9,767	19,126	2,966	0
66 Dartmouth College	31,626	27,563	22,735	20,537	0	846	30,627	153
67 UT MD Anderson Cancer Ctr	31,561	29,336	25,982	25,870	0	15,841	15,720	0
68 U of VT & State Agr Coll	30,767	28,356	28,017	25,864	2,544	12,673	15,135	415
69 Univ. Of Tennessee System	30,592	29,582	28,446	28,573	5,139	12,704	11,301	1,448
70 Colorado State University	29,092	26,232	22,459	20,906	11,399	17,079	523	91
Total, 1st 70 insts.	4,618,852	4,220,750	3,982,131	3,730,508	159,375	1,556,092	2,724,644	178,241
71 Thomas Jefferson Univ	28,861	23,100	22,451	21,311	0	17,329	10,964	568
72 Wayne State University	28,707	25,323	23,079	21,744	0	380	25,821	2,506
73 Oregon State University	28,158	24,112	21,948	21,400	11,452	8,538	1,356	6,812
74 Louisiana State Univ Sys	27,990	26,496	28,599	26,177	1,051	17,461	9,443	35
75 Medical College of Wis	27,668	25,062	21,594	21,432	0	8,024	19,644	0
76 University of Kentucky	26,957	23,700	21,041	19,399	7,896	949	17,600	512
77 University of Ill Urbana	26,433	23,033	22,589	25,525	8,221	14,455	3,757	0
78 Tulane University	25,928	30,518	24,894	22,147	0	4,581	9,488	11,859
79 Purdue University	25,469	27,515	25,697	23,975	3,746	14,956	5,784	983
80 U Tex Med Brnch Galveston	24,281	20,974	21,693	23,152	0	10,092	11,521	2,668
Total, 1st 80 insts.	4,889,304	4,470,583	4,215,716	3,956,770	192,241	1,652,857	2,840,022	204,184
81 N C State Univ at Raleigh	22,345	20,177	19,244	18,937	10,146	12,010	0	189
82 Washington State Univ	22,342	20,302	18,048	15,611	9,126	11,747	528	941
83 California Inst of Tech	21,252	20,485	18,668	17,524	0	21,252	0	0
84 Univ of Missouri Columbia	20,848	20,858	19,340	17,948	6,282	9,356	5,206	4
85 Iowa St U of Sci & Tech	19,752	17,328	16,825	14,476	10,406	7,425	1,134	787
86 University of Kansas	19,523	15,655	15,184	15,951	0	11,525	6,681	1,317
87 Rutgers the St Univ of NJ	18,987	16,372	12,821	11,762	3,164	10,790	4,991	42
88 SUNY Hlth Sci Ctr - Brkln	18,458	17,949	14,574	11,552	0	5,304	12,237	917
89 The Medical Col of Penna	17,914	14,960	11,704	11,514	0	10,045	7,869	0
90 Med Univ of S. Carolina	17,174	14,367	10,910	11,547	0	7,070	10,086	18
Total, 1st 90 insts.	5,087,899	4,649,036	4,373,034	4,103,592	231,365	1,759,381	2,888,754	208,399
91 Univ of Nebraska-Lincoln	17,019	19,845	16,259	18,552	15,060	1,060	899	0
92 St Louis University	17,005	15,680	13,264	11,688	0	8,685	8,320	0
93 Temple University	16,483	20,532	19,551	20,920	0	9,701	6,777	5
94 Loyola Univ - Chicago	16,439	13,720	4,814	4,695	0	3,491	10,232	2,716
95 Unif Serv Univ of Hlth Sc	16,176	12,846	11,288	12,706	0	5,231	10,945	0
96 University of New Mexico	15,837	13,297	10,373	9,720	0	8,298	4,092	3,447
97 SUNY at Albany	15,445	2,031	1,936	2,169	0	12,992	12	2,441
98 Florida A & M University	13,894	12,066	6,891	7,692	6,907	6,718	262	7
99 George Washington Univ	13,397	13,185	15,728	14,279	0	3,583	9,183	631
100 Brown University	13,354	13,775	14,315	12,956	0	1,189	10,563	1,602
Total, 1st 100 insts.	5,242,948	4,786,013	4,487,453	4,218,969	253,332	1,820,329	2,950,039	219,248

See explanatory information and SOURCE at end of table.

Table B-59. Federally financed R&D expenditures in the life sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Life sciences total				1992 subfields			
	1992	1991	1990	1989	Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
101 New York Medical College	13,061	11,056	9,028	10,021	0	8,520	4,541	0
102 West Virginia University	12,502	10,567	11,448	10,264	5,360	897	5,383	862
103 Univ of Texas at Austin	12,372	10,492	10,153	10,818	0	7,762	3,031	1,579
104 VA Polytech Inst & St U	12,344	12,257	13,035	12,417	7,844	3,652	319	529
105 Mississippi State Univ	11,984	11,033	9,910	8,710	10,681	1,053	250	0
106 University of Oklahoma	11,742	10,686	9,289	8,909	0	5,547	4,888	1,307
107 Univ of Cal Riverside	11,622	10,382	10,499	10,018	9,189	1,164	1,269	0
108 Kans St U - Ag & App Sci	11,617	10,404	9,392	9,602	7,706	3,789	122	0
109 Brandeis University	11,592	11,542	10,549	10,685	0	11,592	0	0
110 Princeton University	11,044	10,891	11,174	8,967	0	11,044	0	0
Total, 1st 110 insts.	5,362,828	4,895,323	4,591,930	4,319,380	294,112	1,875,349	2,969,842	223,525
111 Univ of Hawaii-Manoa	10,987	10,419	8,474	8,077	1,591	4,495	1,237	3,664
112 Univ of P R-Med Sci Cmpus	10,679	8,610	5,366	5,235	0	0	10,679	0
113 University of Idaho	10,188	8,523	7,246	6,980	9,205	844	139	0
114 SUNY Hlth Sci Ctr - Syrcs	9,985	10,667	9,965	9,520	0	7,487	2,498	0
115 Utah State University	9,957	9,326	10,194	10,611	6,449	1,999	1,509	0
116 Hahnemann University	9,797	7,492	7,406	7,478	0	4,294	5,141	362
117 U of Neb Med Ctr at Omaha	9,740	10,518	9,078	8,572	0	6,311	3,429	0
118 U of Arkansas Med Sci Cam	9,642	7,807	6,654	5,258	0	4,020	5,622	0
119 New Mexico State Univ	8,912	7,728	8,463i	7,066	3,958	4,954	0	0
120 University of Mississippi	8,555	9,132	8,947	8,551	0	4,746	3,809	0
Total, 1st 120 insts.	5,461,270	4,985,545	4,673 723	4,396,728	315,315	1,914,499	3,003,905	227,551
121 Rush University	8,195	6,174	5,392	7,159	0	3,673	3,826	696
122 Univ of Ark Fayetteville	7,980	7,506	6,754	5,466	7,354	626	0	0
123 Medical Col of Georgia	7,747	8,081	8,045	7,392	0	5,560	2,155	32
124 Oklahoma State University	7,626	6,625	6,754	7,307	3,835	3,427	172	192
125 Univ of South Florida	7,563	7,761	6,250	5,787	0	570	6,965	28
126 Univ of MD College Park	7,528	10,357e	6,287	6,546	1,797	4,197	0	1,534
127 Univ of P R-Mayaguez	7,480i	9,620i	11,759	12,003	7,355i	125i	0i	0i
128 Clemson University	7,435	7,693	5,838	5,001	4,028	2,895	27	485
129 San Diego State Univ	7,393	7,364	6,263	5,844	1,752	4,119	1,390	132
130 Univ of South Carolina	7,364	8,352	8,328	7,403	0	2,584	3,806	974
Total, 1st 130 insts.	5,537,581	5,065,078	4,745,393	4,466,636	341,436	1,942,275	3,022,246	231,624
131 Howard University	7,340	3,714	7,830i	7,277i	0	942	5,774	624
132 Univ of Mass - Amherst	7,222	--	--	--	1,649	4,426	0	1,147
133 University of Oregon	7,177	6,062	5,803	4,876	0	6,970	0	207
134 Montana State University	7,167	6,115	5,816	4,834	3,832	3,026	0	309
135 Univ of Nevada - Reno	7,152	5,054	6,524	4,491	1,660	5,025	19	448
136 University of Wyoming	7,145	6,041	6,001	6,321	3,598	2,792	755	0
137 Univ of South Alabama	7,084	6,902	6,771	6,587	0	5,323	1,609	152
138 Med Col of Ohio at Toledo	7,083	5,970	5,956	5,855	0	5,512	1,571	0
139 Eastern VA Medical School	6,966	7,093	7,782	6,887	0	1,303	5,663	0
140 Albany Medical College	6,740	6,291	6,073	7,259	0	4,794	1,946	0
Total, 1st 140 insts.	5,606,657	5,118,320	4,803,949	4,521,023	352,175	1,982,388	3,039,583	234,511
141 Meharry Medical College	6,673	7,014	6,391	6,397	0	5,672	1,001e	0
142 Auburn University	6,604	5,843	6,760	5,875	5,103	1,337	154	10
143 Morehouse School of Med	6,155i	5,020i	5,149i	4,238	0i	6,155i	0i	0i
144 Chas R Drew U of Med & Sc	5,949	5,311	3,796i	2,281	0	0	5,949	0
145 Wright State University	5,572	4,887	4,238	2,780	0	838	4,684	50
146 University of Louisville	5,546	5,349	7,006	3,756i	0	2,484	2,479	583
147 Texas Tech University	5,486	4,343	4,013	4,549	1,378	2,422	1,686	0
148 Southern Ill U-Carbondale	5,461	5,121	5,303	4,462	1,569	2,023	1,842	27
149 Carnegie-Mellon Univ	5,070	5,197	4,625	4,838	0	5,070	0	0
150 Univ of Alaska Fairbanks	4,927	5,355	6,324	5,435	1,897	3,230	0	0
Total, 1st 150 insts.	5,666,100	5,171,760	4,857,554	4,565,634	361,922	2,011,619	3,057,378	235,181
Total, all other sampled insts.	212,073	224,354	206,687	203,464	50,326	115,663	30,416	15,668
Estimated total non-sampled insts.	14,598	10,962	12,842	13,409	1,189	12,302	1,107	0

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-60. Total and federally financed R&D expenditures in the agricultural sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	1,511,943	1,460,734	1,352,186	1,286,046	413,437	375,403	351,888	348,563
1 Univ of Cal Davis	93,877	92,896	92,153	86,517	23,967	18,040	15,627	16,339
2 University of Georgia	55,371	55,861	54,494	51,108	9,982	8,532	8,421	8,126
3 Michigan State University	49,432	46,285i	44,216	43,703	15,505	14,381i	13,580	13,437
4 Univ of Nebraska-Lincoln	49,273	48,814	45,945	41,360	15,060	18,514	14,965	17,131
5 University of Minnesota	48,107	50,863	47,070	46,514	9,609	9,470	9,423	9,594
6 Univ of Cal Berkeley	47,063	47,719	46,886	42,221	14,218	13,985	12,763	12,085
7 Texas A & M University	45,772	40,244	38,997	36,144	9,767	6,065	5,533	7,408
8 Univ of Cal Riverside	43,151	42,555	41,103	39,034	9,189	7,759	7,835	7,217
9 Louisiana State Univ Sys	41,110	38,406	36,396	33,782	1,051	854	1,128	848
10 N C State Univ at Raleigh	40,245	37,659	36,440	37,121	10,146	7,797	7,802	8,180
Total, 1st 10 insts.	513,401	501,302	483,700	457,504	118,494	105,397	97,077	100,365
11 VA Polytech Inst & St U	38,668	35,933	34,642	30,851	7,844	7,011	7,407	7,210
12 Cornell University	37,262	43,900	42,578	42,913	9,263	9,178	8,624	9,054
13 Pennsylvania State Univ	34,594	35,852	37,407	33,423	7,632	7,720	7,848	7,553
14 Iowa St U of Sci & Tech	34,288	25,216	28,453	26,045	10,406	8,558	8,509	8,287
15 Mississippi State Univ	32,912	33,339	33,358	32,292	10,681	9,929	9,022	7,893
16 Ohio State University	32,752	30,203	28,656	33,914	8,134	8,265	8,641	7,245
17 Oregon State University	32,292	31,921	27,105	30,270	11,452	10,438	8,225	8,326
18 Kans St U - Ag & App Sci	32,176	31,691	29,423	27,695	7,706	7,469	6,304	6,238
19 University of Kentucky	31,730	29,971	27,305	26,736	7,896	7,134	7,790	6,830
20 University of Arizona	31,089	28,353	22,076	17,520	7,644	6,471	4,428	2,944
Total, 1st 20 insts.	851,164	827,681	794,703	759,163	207,152	187,570	173,875	171,945
21 Univ of Missouri Columbia	30,376	31,425	30,113	27,265	6,282	5,471	6,578	6,483
22 Univ of MD College Park	29,941	39,962	4,261	4,326	1,797	3,643e	1,253	1,065
23 University of Ill Urbana	28,792	26,036	25,750	23,176	8,221	7,098	7,193	8,019
24 Auburn University	27,409	27,875	29,153	32,161	5,103	4,759	5,929	5,673
25 Washington State Univ	26,543	24,581	21,761	19,580	9,126	8,082	7,088	6,226
26 University of Idaho	26,361	18,998	16,497	16,366	9,205	6,445	4,820	4,906
27 Univ of Wis-Madison	25,586	23,154	28,087	22,312	9,329	8,269	10,407	8,646
28 Clemson University	25,104	24,770	23,634	20,098	4,028	4,013	3,588	3,144
29 Univ of Ark Fayetteville	24,867	22,997	21,115	18,521	7,354	7,158	6,609	5,249
30 University of Florida	24,265	23,958	25,193	22,480	8,920	8,010	8,272	8,125
Total, 1st 30 insts.	1,120,408	1,091,437	1,020,267	965,448	276,517	250,518	235,812	229,481
31 Oklahoma State University	23,980	23,712	22,355	21,140	3,835	3,669	3,682	4,406
32 Purdue University	23,316	24,010	21,867	20,899	3,746	4,232	3,575	4,125
33 Univ of P R-Mayaguez	22,675i	24,824i	26,967	26,440	7,355i	9,459i	11,561	11,949
34 Univ. Of Tennessee System	21,964	22,068	20,894	20,956	5,139	4,370	4,248	3,986
35 Rutgers the St Univ of NJ	20,206	21,252	19,184	15,832	3,164	3,104	2,941	2,618
36 Colorado State University	19,378	14,990	14,584	12,539	11,399	9,336	7,073	6,802
37 North Dakota State Univ	17,412	11,835	5,651	4,573	3,599	2,844	3,002	2,227
38 Montana State University	15,264	11,713	12,144	12,929	3,832	3,067	2,677	2,834
39 Utah State University	14,947	13,166	12,637	12,635	6,449	5,502	5,424	5,650
40 New Mexico State Univ	12,800	11,239	10,447i	9,302	3,958	3,509	3,588i	2,995
Total, 1st 40 insts.	1,312,350	1,270,246	1,186,997	1,122,693	328,993	299,810	283,383	277,073
41 West Virginia University	11,354	11,305	11,293	7,256	5,360	4,927	4,892	3,573
42 Univ of Hawaii-Manoa	10,523	10,191	8,866	8,018	1,591	1,616	1,273	1,316
43 University of Delaware	10,426	9,309	7,472	7,123	1,765	1,398	1,444	1,423
44 University of Wyoming	9,279	7,294	7,082	7,206	3,598	3,124	3,149	3,225
45 Univ of Mass - Amherst	8,544	--	--	--	1,649	--	--	--
46 Texas Tech University	8,456	7,836	6,993	6,929	1,378	811	709	604
47 Florida A & M University	8,156	7,051	3,614e	3,732	6,907	6,037	2,976	3,732
48 South Dakota State Univ	7,902	7,250	6,104	5,532	2,663	2,492	2,197	1,876
49 Univ of Alaska Fairbanks	7,762	7,935	7,341	7,538	1,697	1,492	1,921	2,239
50 University of Connecticut	7,265	8,780	5,563	4,829	909	1,469	1,479	1,447
Total, 1st 50 insts.	1,402,017	1,347,197	1,251,325	1,180,856	356,510	323,176	303,423	296,508

See explanatory information and SOURCE at end of table.

Table B-60. Total and federally financed R&D expenditures in the agricultural sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 Univ of Nevada - Reno	7,223	4,207	5,633	5,499	1,660	300	2,065	1,497
52 University of Washington	7,035	12,074	10,309	8,197	4,263	7,545	6,716	5,743
53 Univ of Maine Orono	6,574	9,149	7,763	7,063	1,339	1,531	1,556	1,452
54 U of VT & State Agr Coll	5,459	4,881	4,481	4,097	2,544	1,568	1,612	1,500
55 Univ of Rhode Island	5,411i	5,223	1,866	5,591i	289i	272	0	3,747i
56 Virginia State University	3,788	3,716	1,886	2,093	3,744	3,268	1,372	1,579
57 Southern Ill U-Carbondale	3,634	3,182	2,017	2,020	1,569	1,258	518	112
58 NC Ag & Tech State Univ	3,435	3,181	2,780	2,348	3,015	2,928	2,583	2,299
59 U of MD Eastern Shore	3,250	1,298	1,427	2,815	2,798	1,049	1,168	2,074
60 Prairie View A & M Univ	3,164	2,527	2,598	2,767	3,030	2,429	2,510	2,670
Total, 1st 60 insts.	1,450,990	1,396,435	1,292,085	1,223,346	380,761	345,324	323,523	319,181
61 Duke University	2,966	2,180	1,740	993	1,210	659	431	440
62 Lincoln University	2,881	2,602	2,486	2,500e	2,538	2,339	2,315	2,424e
63 University of Montana	2,850	2,430	2,373	2,076	1,379	1,113	1,005	914
64 Alabama A & M University	2,661	2,433	3,056	2,762	1,951	1,914	2,260	1,956
65 SUNY Col of Env Sci & For	2,642	1,634	1,716	1,685	301	76	99	126
66 Univ of New Hampshire	2,601	3,527	3,385	3,044	1,107	1,633e	1,246	1,259
67 Kentucky State University	2,358	1,535i	2,163i	1,303	2,358	1,535i	2,163i	1,303
68 Tennessee State Univ	2,227	1,781	1,520	1,665	2,227	1,781	1,520	1,608
69 Northern Arizona Univ	2,123	1,208	1,033	1,333	650	278	283	242
70 Michigan Tech University	2,085	2,179	2,047	2,309	1,192	895	628	641
Total, 1st 70 insts.	1,476,384	1,417,944	1,313,604	1,243,016	395,674	357,547	335,473	330,094
71 Texas A & I University	2,082	2,124	1,989	1,923	342	234	210	225
72 Southern U - All Campuses	2,075	3,645	3,035i	2,202e	1,873	2,508	2,694i	1,817e
73 Tuskegee University	1,842	1,804e	1,880	1,713i	1,813	1,747	1,878	1,599i
74 San Diego State Univ	1,768	2,534	1,867	1,345	1,752	2,534	1,854	1,341
75 Langston University	1,750	1,310	1,200	2,349	1,446	1,310	1,200	1,961
76 Alcorn State University	1,738	1,534	1,913	1,766	1,738	1,461	1,465	1,766
77 Univ of Ark Pine Bluff	1,738	1,399	1,188	1,148	1,738	1,202	1,188	1,148
78 Stephen F Austin St Univ	1,355	923	834	1,015	292	282	289	320
79 Yale University	1,137	1,209	1,063	1,234	316	317	212	378
80 Univ of Cal Santa Cruz	1,034	1,083	917	792	4	7	5	4
Total, 1st 80 insts.	1,492,903	1,435,509	1,329,490	1,258,503	406,988	369,149	346,477	340,653
81 Georgia Institute of Tech	1,010	610	0	0	567	350	0	0
82 Clark Atlanta University	990	92	57i	52i	796	92	57i	52i
83 Brigham Young University	975	992	601	678i	545	558	202	82i
84 University of D C	954i	942	831	760i	539i	533	399	405i
85 U of the Virgin Islands	919i	965i	1,011e	980	905i	950i	995e	980
86 Delaware State College	738	873	638	638	604	873	531	531
87 Univ of Mass - Dartmouth	585	--	--	--	583	--	--	--
88 Arkansas State University	547	446	381	355	0	0	0	0
89 Cal Poly St U San Luis Ob	539	668	612	745	73	51	70	67
90 Univ of Wis-Stevens Point	284	205	116	297	66	52	67	115
Total, 1st 90 insts.	1,500,444	1,441,302	1,333,737	1,263,008	411,666	372,608	348,798	342,885
91 Univ of Southwestern LA	259	213	214	283	4	14	8	60
92 Arizona State University	185	158	111	0	95	65	15	0
93 Northwestern St Univ La	167	0	0	33	0	0	0	0
94 Western Michigan Univ	158	195	22	11i	0	0	0	0i
95 Tenn Technological Univ	154	252	81	32	0	5	15	5
96 Louisiana Tech University	150i	100i	186i	197e	104i	66i	161i	175e
97 University of Michigan	132	129	153	0	125	123	147	0
98 Illinois State University	92	163	32	14	16	42	0	0
99 South Carolina St College	88i	56i	56i	120i	88i	56i	56i	120i
100 Univ of Wis-River Falls	77	52	48	35	18	20	18	5
Total, 1st 100 insts.	1,501,906	1,442,620	1,334,640	1,263,733	412,116	372,999	349,218	343,250
Total, all other sampled insts.	385	8,824	8,967	13,279	132	1,578	1,852	4,287
Estimated total non-sampled insts.	9,652	9,290	8,579	9,034	1,189	826	818	1,026

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-61. Total and federally financed R&D expenditures in the biological sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	3,318,933	3,055,107	2,856,816	2,640,767	2,139,584	1,944,089	1,841,903	1,734,863
1 Baylor Col of Medicine	84,799	77,138	68,716	57,948	55,140	47,587	44,003	28,427
2 Harvard University	75,582	72,417	68,950	66,372	64,280	58,462	58,242	56,338
3 Texas A & M University	72,275	67,121	63,850	64,365	19,126	15,068	12,804	14,150
4 Univ of Wis-Madison	65,329	58,766	51,297	51,369	35,055	31,321	28,145	28,718
5 Washington University	63,294	56,545	55,023	43,074	45,149	39,939	38,686	31,475
6 University of Washington	62,627	56,042	49,401	44,665	55,943	50,190	45,022	40,078
7 Yale University	61,965	55,776	54,898	52,842	47,825	46,081	48,294	46,848
8 Rockefeller University	61,651	61,707	58,846	59,636	28,101	29,826	27,671	33,054
9 University of Michigan	59,995	57,119	54,127	49,229	39,694	38,521	38,605	35,806
10 Johns Hopkins Univ	58,220	59,710	57,474	51,837	45,860	45,847	42,590	39,742
Total, 1st 10 insts.	665,737	622,341	582,582	541,337	436,173	402,842	384,062	354,636
11 Univ of NC at Chapel Hill	55,941	49,539	44,205	43,086	41,102	37,992	34,809	35,094
12 Columbia Univ Main Div	54,395	49,278	47,751	37,100	47,514	42,550	41,967	33,581
13 Case Western Reserve Univ	51,811	27,954	21,901e	18,093	38,220	19,949	18,414	15,419
14 University of Georgia	47,642	43,676	42,588	39,347	26,841	23,513	23,476	21,809
15 UT SW Medical Ctr-Dallas	44,187	40,843	36,474	32,266	28,470	27,876	25,586	22,577
16 UT MD Anderson Cancer Ctr	44,150	44,461	39,053	36,330	15,841	15,995	13,493	13,056
17 SUNY at Buffalo	39,157	34,817	34,412	35,895	33,380	29,022	29,001	30,670
18 University of Minnesota	38,860	40,172	36,218	27,600	25,256	24,208	23,464	18,150
19 Mass Inst of Technology	38,101	34,398	37,711	34,049	33,345	33,289	32,758	29,509
20 Univ Alabama Birmingham	38,067	33,194	31,192	24,851	26,618	22,673	22,248	19,295
Total, 1st 20 insts.	1,118,048	1,020,673	954,087	869,954	752,760	679,909	649,278	593,796
21 Univ of Pennsylvania	36,905	32,800	31,681	28,347	30,733	27,576	26,756	24,841
22 Vanderbilt University	36,758	30,340	28,932	23,110	31,752	27,922	26,442	21,140
23 Pennsylvania State Univ	36,334	32,896	30,910	29,238	22,965	19,422	17,387	17,120
24 Purdue University	36,240	37,073	34,342	30,724	14,956	16,621	15,518	14,614
25 Duke University	36,000	32,910	30,788	29,050	29,099	27,561	26,856	25,353
26 Ohio State University	35,477	33,657	32,314	30,304	20,664	18,312	17,028	16,783
27 Cornell University	34,944	39,340	39,731	41,361	18,804	20,011	20,642	20,244
28 Tufts University	34,910	31,289	30,544	31,732	29,911	26,258	25,476	27,395
29 Rutgers the St Univ of NJ	34,624	31,332	29,044	27,706	10,790	9,045	6,847	6,588
30 New York University	34,377	30,958	28,582	28,480	24,293	21,798	21,385	23,167
Total, 1st 30 insts.	1,474,617	1,353,268	1,270,955	1,170,006	986,727	894,435	853,615	791,041
31 Univ of Cal Berkeley	34,212	30,685	27,161	29,188	25,685	24,106	21,239	23,780
32 N C State Univ at Raleigh	34,018	32,438	31,752	30,363	12,010	9,534	9,280	8,703
33 Northwestern University	32,319	30,591	29,865	27,298	23,344	20,792	20,389	19,046
34 University of Arizona	31,821	29,334	25,258	23,099	19,794	17,704	14,602	13,187
35 Louisiana State Univ Sys	31,650	27,000	23,704	21,399	17,461	15,766	12,154	12,263
36 Univ of Cal Davis	31,133	29,382	29,489	26,719	12,180	10,465	9,913	9,536
37 University of Chicago	30,780	29,095	28,992	28,137	25,725	25,083	25,517	24,771
38 University of Cincinnati	30,723	31,538	28,927	25,483	25,030	22,083	20,143	17,675
39 University of Rochester	30,484	30,422	29,701	29,572	26,358	27,097	26,144	26,419
40 Univ of Cal Irvine	30,455	29,489	14,805	13,197	23,859	23,271	11,587	10,054
Total, 1st 40 insts.	1,792,212	1,653,242	1,540,609	1,424,461	1,198,173	1,090,336	1,024,586	956,475
41 SUNY at Stony Brook	29,064	25,298	20,585	20,744	19,694	17,716	15,840	15,685
42 Univ of MD College Park	29,017	30,936	10,632	10,483	4,197	5,624e	3,374	3,253
43 Univ of Med & Dent of N J	28,264	26,050e	23,551e	13,126	13,160	11,216	10,025	9,331
44 Univ. of Colorado	27,973	27,203	26,781	28,028	21,672	20,724	20,709	22,405
45 Iowa St U of Sci & Tech	27,103	25,977	26,160	20,627	7,425	6,154	6,407	4,730
46 Washington State Univ	25,944	23,841	21,738	17,761	11,747	11,175	10,172	8,725
47 University of Connecticut	25,706	28,044	29,692	28,694	13,281	14,066	13,751	15,099
48 University of Utah	25,383	20,691	19,310	16,390	20,102	16,886	15,808	13,090
49 University of Kansas	25,060	22,331	19,102	19,093	11,525	10,352	10,200	10,751
50 California Inst of Tech	24,954	26,275	24,857	23,012	21,252	20,485	18,668	17,524
Total, 1st 50 insts.	2,060,680	1,909,886	1,763,015	1,622,419	1,342,228	1,224,734	1,149,542	1,077,068

See explanatory information and SOURCE at end of table.

Table B-61. Total and federally financed R&D expenditures in the biological sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 Colorado State University	24,183	23,543	21,002	17,414	17,079	16,238	15,031	13,486
52 University of Florida	23,846	23,319	20,537	18,380	14,725	14,497	11,563	11,315
53 Michigan State University	23,111	21,840i	20,567	21,130	14,573	13,515i	12,764	11,034
54 University of Virginia	22,787	20,757	20,553	18,327	17,012	15,290	14,893	13,455
55 Univ of Missouri Columbia	22,783	22,635	21,487	19,471	9,356	9,299	8,205	7,641
56 Yeshiva University	22,671	22,547	21,831	19,366	17,720	17,635	16,917	15,138
57 Univ of Mass - Worcester	22,424	--	--	--	16,746	--	--	--
58 Virginia Commonwith Univ	22,424	20,700	20,527	17,485	16,637	15,582	14,671	12,772
59 University of Iowa	22,193	23,314	22,498	21,356	16,577	16,084	15,575	15,522
60 University of Ill Urbana	21,637	21,210	20,137	18,934	14,455	13,908	14,040	13,864
Total, 1st 60 insts.	2,288,739	2,109,551	1,952,154	1,794,282	1,497,108	1,358,782	1,273,201	1,191,295
61 Univ of Ill Chicago	21,096	19,809	22,588	19,958	12,217	12,448	12,798	12,482
62 U of Neb Med Ctr at Omaha	20,737	17,875	11,786	12,241	6,311	6,683	6,583	6,872
63 U Tex Hlth Sci Ctr S Anto	20,445	17,628	16,753	16,338	15,326	12,489	12,058	12,033
64 Indiana University	20,054	17,420	15,469	13,430	13,182	11,637	10,911	9,898
65 Thomas Jefferson Univ	19,940	10,930	10,164	10,250	17,329	9,741	9,325	9,554
66 Emory University	19,616	17,575	16,628	15,747	16,591	14,639	13,486	14,076
67 Unif Serv Univ of Hlth Sc	19,135	5,590	5,243	5,207	5,231	5,590	5,243	5,207
68 Univ of Cal Los Angeles	19,015	17,422	20,979	18,085	14,712	13,144	12,830	14,270
69 University of New Mexico	18,673	16,384	16,060	15,621	8,298	6,534	5,321	5,368
70 Oregon State University	18,082	15,974	14,968	11,989	8,538	6,976	7,476	6,786
Total, 1st 70 insts.	2,485,532	2,266,158	2,102,792	1,933,148	1,614,843	1,456,663	1,369,232	1,287,841
71 Univ. Of Tennessee System	18,037	18,571	17,260	17,381	12,704	12,784	11,486	11,591
72 Temple University	17,270	23,858	23,491	20,002	9,701	13,252	13,552	13,554
73 U Tex Hlth Sci Ctr Houstn	17,030	15,871	15,608	15,357	12,243	10,681	11,039	10,904
74 U of VT & State Agr Coll	17,001	16,393	16,274	15,783	12,673	12,692	12,998	12,400
75 CUNY Mt Sinai Sch of Med	16,703	15,892	16,934	14,118	14,521	12,972	13,866	11,045
76 Princeton University	16,684	18,513	17,597	15,272	11,044	10,891	11,174	8,967
77 SUNY at Albany	16,346	2,837	2,789	2,866	12,992	2,024	1,882	2,169
78 Brandeis University	16,177	15,608	14,303	13,244	11,592	11,542i	10,549	10,685
79 Univ of MD Balt Prof Sch	16,175	15,025e	12,553	11,378	7,213	6,552	5,826	5,395
80 University of Miami	15,212	15,525	16,371	16,586	13,272	13,298	13,862	12,565
Total, 1st 80 insts.	2,652,167	2,424,251	2,255,972	2,075,155	1,732,798	1,563,351	1,475,466	1,387,116
81 U Tex Med Brnch Galveston	15,047	13,393	12,589	13,022	10,092	8,917	8,773	9,654
82 Georgetown University	14,553	13,207	12,112	10,805	11,519	10,776	9,817	8,801
83 The Medical Col of Penna	14,062	12,151	8,618	11,885	10,045	8,671	6,982	7,443
84 Univ of Cal San Diego	13,110	12,013	11,405	10,850	12,078	10,759	10,348	9,828
85 University of Oklahoma	13,012	11,273	9,352	9,882	5,547	4,363	4,049	5,079
86 Carnegie-Mellon Univ	12,957	12,568	11,400	11,008	5,070	5,197	4,625	4,838
87 Oregon Hlth Sciences Univ	12,657i	10,758i	10,519i	9,042	9,892i	8,520i	8,032i	7,124
88 Medical College of Wis	12,638	11,729	11,218	12,439	8,024	7,238	6,996	7,628
89 Medical Col of Georgia	12,087	6,821	6,405	5,868	5,560	5,805	5,688	4,785
90 Univ of Texas at Austin	12,044	12,754	14,080	13,147	7,762	7,532	7,002	7,672
Total, 1st 90 insts.	2,784,314	2,540,718	2,363,670	2,183,103	1,818,387	1,641,159	1,547,778	1,459,968
91 Oklahoma State University	11,078	9,349	8,611	7,628	3,427	2,771	2,993	2,764
92 Med Univ of S. Carolina	11,037	9,745	8,055	9,685	7,070	6,261	4,408	5,461
93 New York Medical College	10,755	9,218	7,878	7,207	8,520	7,300	6,076	5,977e
94 VA Polytech Inst & St U	10,098	11,547	13,090	11,557	3,652	3,868	4,189	3,492
95 Stanford University	9,941	8,956	9,780	9,841	6,924	6,587	7,704	7,707
96 Univ of Hawaii-Manoa	9,346	8,715	7,332	6,714	4,495	3,671	3,131	3,028
97 Clemson University	9,323	8,184	9,091	7,679	2,895	3,470	1,972	1,794
98 St Louis University	9,203	9,065	8,342	7,517	8,685	8,227	7,489	7,224
99 Univ of Alaska Fairbanks	9,118	8,973	10,113	7,542	3,230	3,863	4,403	3,196
100 University of Oregon	8,984	7,061	6,793	5,824	6,970	5,871	5,581	4,698
Total, 1st 100 insts.	2,883,197	2,631,531	2,452,755	2,264,297	1,874,255	1,693,068	1,595,724	1,505,309
Total, all other sampled insts.	413,776	404,951	379,799	351,863	253,027	241,357	234,464	218,952
Estimated total non-sampled insts.	21,960	18,625	24,262	24,627	12,302	9,664	11,715	10,602

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-62. Total and federally financed R&D expenditures in the medical sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	4,967,380	4,569,715	4,168,510	3,827,561	3,088,901	2,842,512	2,665,223	2,501,033
1 Univ of Cal San Francisco	295,784	268,700	238,278	219,446	202,283	190,936	175,257	159,906
2 Univ of Cal Los Angeles	148,278	136,264	133,412	124,481	96,756	90,024	89,654	86,738
3 Stanford University	145,394	129,184	125,002	118,151	100,289	95,793	103,145	96,317
4 Johns Hopkins Univ	131,339	127,022	117,366	101,414	106,987	105,005	95,721	83,463
5 University of Minnesota	130,983	103,342	99,238	90,446	73,889	48,882	49,199	50,682
6 Univ of Cal San Diego	126,869	117,698	99,909	88,374	104,479	94,433	80,358	72,544
7 Univ of Pennsylvania	121,410	111,181	100,918	89,399	84,302	79,448	70,201	63,136
8 University of Michigan	119,825	118,472	93,805	80,901	69,515	69,814	58,116	52,164
9 Duke University	110,685	96,758	77,747	72,150	65,778	62,870	56,314	52,698
10 University of Washington	107,541	82,930	77,129	69,679	84,810	66,007	62,369	56,405
Total, 1st 10 insts.	1,440,108	1,291,551	1,162,804	1,054,441	991,088	903,212	840,334	774,053
11 Univ of Wis-Madison	107,226	101,919	95,903	89,148	57,132	54,753	53,593	50,377
12 Yale University	104,688	96,542	87,132	78,702	77,825	73,061	67,682	62,127
13 University of Pittsburgh	100,885	79,439	67,811	63,720	81,203	64,506	55,861	50,766
14 Univ of Southern Cal	90,762	82,874	79,666	79,660	56,295	54,149	54,318	54,406
15 Univ of MD Balt Prof Sch	86,264	80,130e	66,951	60,683	38,471	34,946	31,073	28,776
16 Cornell University	83,599	79,189	75,576	71,381	53,489	50,727	51,396	46,499
17 Washington University	83,523	82,399	74,667	64,567	61,727	58,048	52,455	49,827
18 Baylor Col of Medicine	83,199	83,946	86,406	76,733	30,594	31,165	31,790	40,909
19 Harvard University	75,996	71,817	67,571	61,399	49,821	47,310	44,351	36,502
20 Univ Alabama Birmingham	72,389	72,103	71,806	69,179	53,454	51,306	49,556	47,029
Total, 1st 20 insts.	2,328,639	2,121,909	1,936,293	1,769,613	1,551,099	1,423,183	1,332,409	1,241,271
21 Columbia Univ Main Div	72,375	69,554	65,322	62,963	61,390	56,774	55,816	53,182
22 University of Iowa	71,676	62,116	58,626	55,552	47,133	42,729	42,321	41,372
23 UT MD Anderson Cancer Ctr	61,723	57,861	45,766	42,767	15,720	13,341	12,489	12,814
24 CUNY Mt Sinai Sch of Med	58,858	50,418	46,818	42,738	36,332	29,063	29,741	26,188
25 Univ of Cal Davis	58,474	56,092	55,833	49,241	38,842	37,211	38,496	34,522
26 UT SW Medical Ctr-Dallas	58,076	53,668	49,445	47,654	33,029	29,870	29,379	28,677
27 University of Miami	56,568	55,240	51,930	51,234	40,418	34,790	33,770	32,082
28 Univ of Med & Dent of N J	56,241	54,737e	48,238e	41,325	25,932	27,552	23,160	18,652
29 Univ of NC at Chapel Hill	54,404	47,137	41,524	40,375	41,502	38,443	34,031	33,102
30 Boston University	53,937	49,305	50,688	47,108	44,232	40,693	42,592	41,372
Total, 1st 30 insts.	2,930,971	2,678,037	2,450,483	2,250,570	1,935,629	1,773,649	1,674,204	1,563,234
31 Univ. of Colorado	52,830	44,204	45,307	41,215	39,870	33,502	31,875	28,778
32 University of Rochester	52,490	53,386	51,965	46,758	37,367	40,649	40,893	36,567
33 Emory University	51,101	50,005	44,527	31,253	30,724	26,090	21,868	18,264
34 Wayne State University	50,787	44,086	39,574	37,980	25,821	22,716	21,001	20,658
35 Wake Forest University	48,405	42,316	38,015	35,694	36,725	32,318	29,289	27,807
36 University of Chicago	47,513	47,358	49,984	45,718	38,761	38,066	38,733	35,651
37 Indiana University	47,243	43,325	38,275	33,343	27,409	23,270	21,641	22,313
38 Yeshiva University	45,342	45,096	43,664	38,733	35,439	35,273	33,835	30,277
39 New York University	44,960	41,624	41,404	35,382	32,600	30,139	29,109	26,760
40 U Tex Hlth Sci Ctr S Anto	44,734	34,140	28,910	26,163	25,722	20,281	17,373	17,291
Total, 1st 40 insts.	3,416,376	3,123,577	2,872,108	2,622,809	2,266,067	2,075,953	1,959,821	1,827,600
41 Univ of Ill Chicago	44,637	39,371	34,917	35,316	22,269	18,314	18,063	19,222
42 Dartmouth College	41,706	34,597	32,318e	27,702	30,627	26,817	21,988l	19,862
43 University of Utah	41,530	37,118	35,543	32,867	30,457	26,673	26,668	26,660
44 Virginia Commonwith Univ	40,892	39,516	37,074	31,402	26,117	26,536	24,250	20,539
45 Univ of South Florida	40,481	42,661	39,271	29,762	6,965	6,983	5,889	5,218
46 Georgetown University	40,325	37,168	29,008	32,467	23,816	23,181	19,320	20,841
47 Unif Serv Univ of Hlth Sc	40,036	41,506	30,837	21,855	10,945	7,256	6,045	7,499
48 University of Connecticut	39,312	37,915	38,020	35,250	19,343	18,522	17,144	18,197
49 University of Arizona	37,778	36,765	32,656	33,174	23,377	21,360	19,373	20,216
50 Univ of Cal Berkeley	37,507	25,889	13,809	12,459	8,563	7,479	7,855	7,853
Total, 1st 50 insts.	3,820,580	3,496,083	3,195,561	2,915,063	2,468,546	2,259,074	2,126,416	1,993,507

See explanatory information and SOURCE at end of table.

Table B-62. Total and federally financed R&D expenditures in the medical sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 University of Virginia	37,474	29,919	30,327	24,044	19,466	16,470	15,724	13,298
52 U Tex Hlth Sci Ctr Houstn	36,347	34,705	26,703	25,826	22,992	20,824	15,860	15,066
53 SUNY at Buffalo	35,465	32,501	27,757	28,506	22,334	20,685	16,631	19,227
54 Ohio State University	35,416	29,020	24,238	22,631	20,573	15,990	14,562	13,439
55 Northwestern University	35,054	39,288	35,483	32,282	13,315	13,538	13,168	12,397
56 University of Florida	34,611	31,984	31,824	29,211	17,146	15,241	15,185	14,549
57 Oregon Hlth Sciences Univ	33,082i	27,857i	27,937i	23,493	20,744i	17,868i	16,843i	14,938
58 Vanderbilt University	32,650	28,872	27,906	25,415	26,042	26,485	25,835	22,946
59 Medical College of Wis	30,941	28,717	23,404	22,512	19,644	17,794	14,598	13,804
60 Univ of Mass - Worcester	30,918	--	--	--	18,667	--	--	--
Total, 1st 60 insts.	4,162,536	3,778,946	3,451,140	3,148,983	2,669,469	2,423,969	2,274,822	2,133,171
61 Case Western Reserve Univ	30,553	43,933	38,510e	36,432	24,191	35,763	32,476	31,805
62 University of Kentucky	30,258	25,025	21,254	18,590	17,600	15,280	12,404	11,458
63 Univ of Cal Irvine	29,447	25,930	38,456	31,244	9,493	9,019	22,595	19,532
64 SUNY Hlth Sci Ctr - Brkn	25,040	23,923	12,123	11,698	12,237	11,940	7,724	6,585
65 University of Cincinnati	24,400	23,169	22,568	23,029	14,566	12,076	12,672	12,875
66 U Tex Med Brnch Galveston	23,928	20,511	17,868	18,305	11,521	9,759	10,636	11,241
67 Tulane University	22,810	27,150	20,413	16,991	9,488	14,047	9,663	7,531
68 SUNY at Stony Brook	22,419	18,363	17,233	16,364	13,498	11,050	10,974	10,223
69 U of VT & State Agr Coll	21,256	19,389	18,113	15,848	15,135	13,487	12,373	11,015
70 Univ. Of Tennessee System	21,253	19,715	20,435	20,563	11,301	10,394	11,495	11,747
Total, 1st 70 insts.	4,413,902	4,026,054	3,678,113	3,358,047	2,808,499	2,566,784	2,417,834	2,267,183
71 Med Univ of S. Carolina	20,756	15,920	14,884	13,123	10,086	8,106	6,459	5,990
72 University of Oklahoma	19,416	20,900	16,173	13,488	4,888	6,070	5,238	3,830
73 Thomas Jefferson Univ	18,666	20,636	17,147	17,961	10,964	11,860	10,167	10,579
74 Louisiana State Univ Sys	18,066	14,713	22,365	16,139	9,443	9,850	14,732	10,836
75 Rush University	17,990	19,323	15,393	16,233	3,826	3,300	3,125	4,158
76 Univ of Missouri Columbia	17,447	17,618	14,079	10,818	5,206	6,087	4,557	3,824
77 Loyola Univ - Chicago	16,844	12,917	4,210	4,044	10,232	8,540	1,586	1,546
78 Temple University	16,791	15,021	13,618	14,054	6,777	7,273	5,999	7,366
79 Pennsylvania State Univ	16,620	15,463	13,799	11,335	11,559	11,389	9,790	8,098
80 Brown University	15,307	13,650	13,618	12,798	10,563	10,243	10,749	9,966
Total, 1st 80 insts.	4,591,805	4,192,215	3,823,399	3,488,040	2,892,043	2,649,502	2,490,236	2,333,376
81 University of Kansas	14,042	12,433	10,865	7,596	6,681	4,523	4,079	3,631
82 University of Georgia	13,740	15,039	14,660	13,212	2,305	2,683	2,534	2,588
83 Univ of P R-Med Sci Cmpus	13,685	11,014	6,293	6,528	10,679	8,610	5,366	5,235
84 The Medical Col of Penna	11,773	12,494	10,025	8,657	7,869	6,289	4,722	4,071
85 George Washington Univ	11,768	12,318	13,673	13,628	9,183	9,676	11,127	11,237
86 U of Neb Med Ctr at Omaha	10,827	9,983	6,058	5,050	3,429	3,835	2,495	1,700
87 West Virginia University	10,544	7,448	4,723	6,804	5,383	2,973	1,763	1,979
88 Rutgers the St Univ of NJ	10,525	8,446	7,708	6,238	4,991	3,998	2,842	2,399
89 St Louis University	10,012	9,424	7,712	5,981	8,320	7,453	5,768	4,302
90 U of Arkansas Med Sci Cam	9,758	9,405	8,219e	7,484	5,622	4,887	3,354	2,580
Total, 1st 90 insts.	4,708,479	4,300,219	3,913,335	3,569,218	2,956,505	2,704,429	2,534,286	2,373,098
91 Eastern VA Medical School	9,302	9,196e	8,688e	5,298	5,663	5,766e	6,326e	4,726
92 University of New Mexico	9,021	9,640	7,045	5,789	4,092	4,556	3,567	3,107
93 Hahnemann University	9,002	9,812	7,548	6,171	5,141	5,403	3,570	3,603
94 Medical Col of Georgia	8,934	4,701	5,379	5,088	2,155	2,228	2,281	2,517
95 Purdue University	8,822	8,115	9,354	7,894	5,784	5,749	5,808	4,825
96 Michigan State University	8,518	7,976i	7,602	7,933	3,881	3,600i	3,399	3,018
97 Univ of South Carolina	8,366	9,744	9,934	8,948	3,806	5,152	5,471	4,957
98 University of Mississippi	8,154	8,102	8,102	7,943	3,809	3,763	4,010	3,972
99 Chas R Drew U of Med & Sc	7,862	7,043	4,662i	2,281	5,949	5,311	3,796i	2,281
100 University of Ill Urbana	7,668	4,592	4,011	6,771	3,757	2,027	1,356	3,642
Total, 1st 100 insts.	4,794,128	4,379,142	3,985,660	3,633,334	3,000,542	2,747,984	2,573,870	2,409,746
Total, all other sampled insts.	171,521	189,373	182,375	192,238	87,252	94,056	91,283	89,505
Estimated total non-sampled insts.	1,731	1,200	475	1,989	1,107	472	70	1,782

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-63. Total and federally financed R&D expenditures in psychology at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	336,107	290,745	258,076	236,791	221,641	192,059	168,320	155,802
1 University of Michigan	11,439	6,960	5,388	5,601	7,296	3,391	2,996	2,948
2 Univ of Wis-Madison	10,389	9,469	8,553	8,843	8,510	7,452	6,876	7,336
3 Univ of Southern Cal	10,191	9,776	7,527	5,098	8,252	6,753	5,227	3,659
4 Univ of Cal Los Angeles	8,225	7,142	6,681	6,694	5,668	5,199	4,782	5,369
5 Mass Inst of Technology	8,018	7,481	7,856	7,573	4,000	6,720	7,231	6,309
6 Univ of Cal Berkeley	7,088	6,548	6,414	5,933	4,029	4,195	3,685	3,317
7 Rutgers the St Univ of NJ	7,029	5,894	6,198	5,202	3,017	2,522	2,593	2,285
8 Univ. of Colorado	6,752	5,948	5,178	4,958	4,501	3,999	3,549	3,438
9 University of Minnesota	6,341	7,622	6,042	6,283	4,918	4,992	3,962	3,953
10 University of Washington	6,315	5,256	5,097	4,553	5,878	4,543	4,664	4,218
Total, 1st 10 insts.	81,787	72,096	64,934	60,738	56,069	49,766	45,565	42,832
11 Pennsylvania State Univ	6,302	5,768	4,565	2,756	3,463	3,319	2,040	1,062
12 University of Ill Urbana	6,289	5,970	6,169	5,420	3,708	3,557	3,571	3,381
13 Princeton University	5,853	5,238	5,015	4,528	3,237	2,518	2,387	2,377
14 University of Rochester	5,812	5,062	4,731	4,767	2,979	2,457	2,319	2,688
15 University of Connecticut	5,754	4,831	3,133	3,017	2,781	2,406	830	1,042
16 Temple University	5,720	2,874	1,242	912	3,464	1,749	565	439
17 Carnegie-Mellon Univ	4,682	4,232	4,458	4,007	3,325	3,166	3,403	3,324
18 Yale University	4,672	3,710	3,181	2,952	1,866	1,705	1,686	1,292
19 Duke University	4,538	2,131	1,558	1,326	4,409	2,074	1,471	1,245
20 University of Georgia	4,237	3,526	3,656	3,668	1,502	1,090	1,137	1,419
Total, 1st 20 insts.	135,646	115,438	102,642	94,091	86,803	73,807	64,974	61,101
21 SUNY at Buffalo	4,182	3,681	2,794	2,314	1,327	1,335	912	864
22 Indiana University	3,907	3,566	3,089	2,795	2,983	2,605	2,174	2,281
23 New York University	3,787	3,458	3,605	3,703	3,217	3,078	3,316	3,591
24 Stanford University	3,698	3,599	3,504	4,081	2,633	2,703	2,900	3,024
25 Harvard University	3,609	2,302	2,064	2,123	2,418	1,652	1,299	1,437
26 Cornell University	3,570	3,514	2,909	2,875	1,568	1,558	1,106	1,234
27 Univ of MD College Park	3,494	3,339	4,994	4,773	1,237	1,125	1,194	1,380
28 Michigan State University	3,293	3,081	2,930	1,739	1,996	1,851	1,748	865
29 Univ of South Florida	3,242	1,783	1,358	1,438	1,255	545	655	892
30 San Diego State Univ	3,208	2,181	1,349	813	2,643	2,046	1,087	382
Total, 1st 30 insts.	171,636	145,942	131,238	120,745	108,080	92,305	81,365	77,051
31 Memphis State University	3,153	2,716	3,139	3,029	1,048	665	974	1,064
32 SUNY at Albany	3,123	2,947	2,797	2,894	2,430	2,128	2,321	2,471
33 University of Oklahoma	2,958	2,536	359	384	506	135	104	142
34 Arizona State University	2,947	2,556	2,138	1,727	2,056	1,780	1,552	1,244
35 University of Denver	2,925	2,319	1,043	1,077	2,665	1,581	750	896
36 Univ of Mass - Amherst	2,916	--	--	--	2,378	--	--	--
37 Univ of Cal San Diego	2,914	2,965	2,617	2,410	2,168	2,163	1,822	1,619
38 Colorado State University	2,868	2,476	1,607	1,243	2,365	2,123	1,556	1,114
39 Univ of Cal Santa Barbara	2,861	2,690	2,789	2,936	2,147	1,931	2,075	2,180
40 Univ of Rhode Island	2,798	2,646	943	626	2,371	2,232	806	482
Total, 1st 40 insts.	201,099	169,793	148,670	137,071	128,214	107,043	93,325	88,263
41 Univ of Texas at Austin	2,765	2,608	2,259	2,204	2,197	1,987	1,678	1,690
42 SUNY at Binghamton	2,715	2,225	2,186	1,714	1,218	766	782	663
43 University of Virginia	2,655	2,534	2,403	1,866	2,194	2,207	2,064	1,535
44 Georgia State University	2,521	2,267	1,626	1,005	805	865	517	354
45 U of Houston	2,353	2,167	1,584	1,347	1,720	1,620	907	692
46 University of Pittsburgh	2,280	2,236	1,583	1,151	2,092	1,811	1,456	1,017
47 Texas Christian Univ	2,236	1,731	854	194	2,233	1,727	831	177
48 Univ of NC at Chapel Hill	2,235	1,245	1,013	808	1,924	1,134	939	722
49 Rush University	2,184	2,018	921	528	935	836	691	423
50 University of Oregon	2,174	2,043	1,552	1,405	1,370	1,380	1,274	1,153
Total, 1st 50 insts.	225,217	190,867	164,654	149,293	144,902	121,376	104,464	96,689

See explanatory information and SOURCE at end of table.

Table B-63. Total and federally financed R&D expenditures in psychology at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 San Jose State University	2,165	2,594	1,910	883	2,150	2,490	1,813	871
52 University of Florida	2,152	1,493	2,114	2,674	928	834	995	1,373
53 Florida State University	2,151	2,361	3,166	3,000	1,098	1,301	1,449	1,328
54 SUNY at Stony Brook	2,069	1,793	1,050	1,001	1,752	1,428	849	511
55 Univ of South Carolina	2,025	1,898	2,261	2,119	1,447	1,252	1,123	994
56 Univ of Pennsylvania	1,987	1,516	1,546	1,570	1,928	1,467	1,357	1,570
57 University of Arizona	1,978	2,263	626	301	899	1,253	469	180
58 Columbia Univ Main Div	1,938	1,653	1,261	1,338	1,938	1,536	1,149	1,204
59 Purdue University	1,908	1,394	1,521	1,727	1,363	978	1,183	1,252
60 Wayne State University	1,876	1,189	716	915	1,341	822	465	624
Total, 1st 60 insts.	245,466	209,021	180,825	164,821	159,746	134,737	115,316	106,596
61 Vanderbilt University	1,844	1,898	1,744	1,507	1,387	1,489	1,433	1,040
62 Utah State University	1,763	1,460	497	254	1,524	1,154	307	118
63 Univ of Ill Chicago	1,757	977	275	418	1,348	729	163	219
64 Oregon Hlth Sciences Univ	1,629i	1,389i	1,350i	1,168	1,338i	1,153i	1,087i	965
65 University of Chicago	1,539	1,697	1,008	967	1,005	960	704	713
66 University of New Mexico	1,537	897	552	782	1,172	730	418	678
67 Northwestern University	1,536	1,191	981	792	1,214	916	767	708
68 Brown University	1,518	1,502	1,550	1,136	1,034	1,123	1,301	994
69 Texas A & M University	1,501	756	686	860	625	482	310	535
70 Georgia Institute of Tech	1,463	1,281	1,696	2,891	822	735	956	1,823
Total, 1st 70 insts.	261,553	222,069	191,164	175,596	171,215	144,208	122,762	114,189
71 VA Polytech Inst & St U	1,463	1,253	1,209	705	884	730	664	366
72 Brandeis University	1,453	1,345	1,224	1,283	1,167	1,178	1,086	1,090
73 University of Kansas	1,437	1,421	1,426	1,096	770	745	764	671
74 Univ of Missouri Columbia	1,337	1,211	1,449	1,461	648	754	492	507
75 Kent State University	1,306	932	234	130	1,013	688	170	97
76 Florida Atlantic Univ	1,268	1,049	565	493	1,229	977	528	393
77 University of Miami	1,186	1,102	1,419	1,245	967	1,029	1,269	1,160
78 University of Utah	1,172	1,035	614	687	936	940	488	424
79 Case Western Reserve Univ	1,107	343	263e	186	258	233	232	162
80 University of Iowa	1,051	1,141	1,009	1,269	564	707	542	583
Total, 1st 80 insts.	274,333	232,901	200,576	184,141	179,651	152,189	128,997	119,642
81 Johns Hopkins Univ	1,047	1,243	1,368	1,193	873	948	1,162	1,035
82 University of Dayton	1,041	885	2,453	3,075	1,010	872	2,446	2,562
83 Ohio State University	1,004	558	395	338	696	305	135	145
84 Louisiana State Univ Sys	993	876	795	1,141	607	594	390	238
85 CUNY City College	926	340	257	150	759	186	142	26
86 Emory University	926	720	520	254	649	587	391	210
87 University of the Pacific	918	301	0i	0	893	301	0i	0
88 Iowa St U of Sci & Tech	911	728	541	617	292	146	10	124
89 Northeastern University	904	701	618	618	756	448i	460	525
90 Univ Alabama Birmingham	887	753	574	638	627	536	378	502
Total, 1st 90 insts.	283,890	240,006	208,097	192,165	186,813	157,112	134,511	125,009
91 U of VT & State Agr Coll	879	1,137	1,246	1,381	590e	805	1,002	1,048
92 Cal Sch Prof Psych-Fresno	875	661	1,382	1,922	252	208	985	1,566
93 The University of Alabama	791	894	831	651	157	144	279	288
94 Syracuse University	786	472	486	805	523	366	304	524
95 Tufts University	782	781	854	774	712	723	749	620
96 Univ of Cal Riverside	774	602	191	76	621	380	113	17
97 Univ of Texas at Dallas	772	216	218	29	203	102	108	0
98 Univ of Nebraska-Lincoln	725	315	418	602	363	218	119	270
99 Tulane University	712	473	347	235	242	211	129	88
100 DePaul University	703	534	612	533	513	425	433	473
Total, 1st 100 insts.	291,689	246,091	214,682	199,173	190,989	160,694	138,732	129,903
Total, all other sampled insts.	31,798	32,492	34,084	30,902	19,982	21,373	22,080	20,622
Estimated total non-sampled insts.	12,620	12,162	9,310	6,716	10,670	9,992	7,508	5,277

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-64. R&D expenditures in the social sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Social sciences total				1992 subfields			
	1992	1991	1990	1989	Economics	Political science	Sociology	Other
Total, all institutions	817,209	755,148	708,309	636,933	224,660	143,842	165,631	283,275
1 University of Michigan	44,451	41,259	39,203	36,860	12,705	5,697	11,838	14,211
2 Harvard University	43,787	39,711	39,668	40,675	15,609	20,184	716	7,278
3 Univ of Wis-Madison	25,441	22,608	22,661	19,571	8,906	1,207	6,282	9,046
4 University of Georgia	20,118	19,821	18,538	17,580	8,477	1,425	1,408	8,808
5 Univ of Cal Berkeley	19,053	19,894	19,550	16,595	249	8,801	3,587	6,416
6 Univ of Pennsylvania	17,563	13,484	14,956	16,267	5,154	813	2,099	9,497
7 Univ of Cal Los Angeles	17,043	16,442	15,530	13,559	532	307	610	15,594
8 Ohio State University	16,422	19,640	16,489	13,197	5,151	4,682	426	6,163
9 Rutgers the St Univ of NJ	15,609	14,438	13,005	11,285	1,402	6,122	3,753	4,332
10 Univ of MD College Park	14,953	6,549	16,641	13,900	5,571	1,159	1,804	6,619
Total, 1st 10 insts.	234,440	213,846	216,241	199,489	63,756	50,397	32,323	87,984
11 University of Minnesota	14,000	12,188	11,245	8,455	8,132	1,602	2,291	1,975
12 Univ of NC at Chapel Hill	13,924	11,290	10,193	10,316	44	1	4,384	9,495
13 Brandeis University	13,173	12,377	11,061	11,456	177	13	12,663	320
14 Univ of Texas at Austin	12,890	19,674	15,335	13,882	3,885	3,040	3,542	2,423
15 Texas A & M University	12,224	8,852	9,329	10,912	7,937	1,298	1,891	1,098
16 University of Oklahoma	11,593	8,733	4,995	3,765	1,355	1,102	209	8,927
17 University of Ill Urbana	11,241	10,962	10,433	7,332	4,280	2,628	252	4,081
18 Cornell University	10,923	11,865	12,049	10,414	4,431	44	1,796	4,652
19 Temple University	10,325	9,768	7,688	6,675	237	773	8,965	350
20 Pennsylvania State Univ	9,934	11,274	8,943	7,766	3,098	1,038	4,447	1,351
Total, 1st 20 insts.	354,667	330,829	317,512	290,462	97,332	61,936	72,763	122,636
21 Princeton University	9,708	9,562	9,704	8,242	1,671	5,907	1,398	732
22 Iowa St U of Sci & Tech	9,046	8,619	6,289	5,564	3,788	292	4,805	161
23 Washington State Univ	8,892	8,293	8,237	7,581	5,995	140	2,378	379
24 University of Arizona	8,492	8,271	7,944	7,394	4,451	47	2,193	1,801
25 Johns Hopkins Univ	8,294	10,425	10,767	10,258	1,435	60	4,584	2,215
26 Duke University	8,192	6,392	7,048	8,310	1,834	2,504	2,230	1,624
27 University of Washington	8,115	6,942	4,921	4,286	63	6,603	483	966
28 Tulane University	7,855	7,527	3,840	589	1,362	0	2,103	4,390
29 University of New Mexico	7,829	5,443	2,001	1,484	219	375	591	6,644
30 Georgia Institute of Tech	7,736	8,491	5,246	4,105	7,366	89	210	71
Total, 1st 30 insts.	438,826	410,794	383,509	348,275	125,516	77,953	93,738	141,619
31 Arizona State University	7,702	7,489	7,171	4,743	934	746	170	5,852
32 Michigan State University	7,420	6,948	6,622	5,105	5,299	169	31	1,921
33 George Washington Univ	7,025	442	402	556	418	6,205	155	247
34 New York University	6,979	5,024	4,532	5,334	1,403	4,438	118	1,020
35 University of Delaware	6,699	4,220	2,705	1,544	17	0	3,141	3,541
36 Oklahoma State University	6,634	7,968	6,866	6,076	5,118	62	197	1,259
37 Colorado State University	6,562	6,388	6,092	4,687	992	110	701	4,759
38 Univ of Missouri Columbia	6,538	6,481	5,249	4,230	3,519	288	1,988	743
39 Mass Inst of Technology	6,467	3,461	4,645	5,109	1,969	2,425	0	2,073
40 University of Connecticut	6,344	4,759	3,254	3,199	1,952	581	720	3,091
Total, 1st 40 insts.	507,196	463,974	431,047	388,858	147,135	92,977	100,959	166,125
41 Univ of Cal Santa Barbara	6,121	4,945	4,816	2,942	1,783	65	155	4,118
42 Purdue University	6,065	5,883	6,607	6,553	3,908	90	1,568	499
43 Univ of South Carolina	5,653	5,672	5,343	5,638	1,534	1,073	1,103	1,943
44 Clemson University	5,575	5,783	4,888	4,584	2,959	813	74	1,729
45 Univ of Southern Cal	5,570	4,599	3,399	2,926	99	1,502	3,133	836
46 Louisiana State Univ Sys	5,515	5,083	4,036	5,757	2,884	430	788	1,413
47 Univ of Mass - Boston	5,271	--	--	--	1	2,353	684	2,233
48 Stanford University	5,195	3,977	2,268	2,679	1,064	221	511	3,399
49 Columbia Univ Main Div	4,989	5,381	5,117	6,569	181e	812	3,996e	0
50 Carnegie-Mellon Univ	4,986	4,276	3,412	3,074	2,241	1,114	1,631	0
Total, 1st 50 insts.	562,136	509,553	470,933	429,580	163,789	101,450	114,602	182,295

See explanatory information and SOURCE at end of table.

Table B-64. R&D expenditures in the social sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Social sciences total				1992 subfields			
	1992	1991	1990	1989	Economics	Political science	Sociology	Other
51 Univ. of Colorado	4,948	4,050	4,208	2,629	1,481	236	2,357	874
52 Univ of Wis-Milwaukee	4,889	3,887	2,472	2,632	1,083	415	332	3,059
53 Indiana University	4,588	3,955	2,943	3,075	1,466	633	713	1,776
54 Cleveland State Univ	4,[illegible]	4,310	3,893	3,072	3	39	687	3,836
55 Univ of Cal Irvine	4,286	3,923	3,666	3,556	35	1,956	1,174	1,121
56 Florida State University	4,251	8,537	7,749	6,657	305	104	1,093	2,749
57 Univ. Of Tennessee System	4,233	4,396	4,658	4,729	2,680	951	484	118
58 Emory University	4,215	2,749	2,465	1,922	7	4,039	168	1
59 Vanderbilt University	4,208	3,083	1,561	1,182	2	3,878	74	254
60 Case Western Reserve Univ	4,179	2,307	3,188e	2,595	1,234	2	247	2,696
Total, 1st 60 insts.	606,498	548,810	507,736	461,629	172,085	113,703	121,931	198,779
61 University of Virginia	4,052	4,850	4,535	2,660	165	3,715	152	20
62 University of Pittsburgh	4,014	3,700	4,246	6,006	256	1,178	121	2,459
63 Univ of Ill Chicago	3,879	3,496	3,309	2,292	147	55	174	3,503
64 University of Iowa	3,851	4,139	2,893	2,404	244	854	1,252	1,501
65 VA Polytech Inst & St U	3,831	4,956	6,682	4,508	1,494	82	67	2,188
66 SUNY at Buffalo	3,808	4,168	4,421	2,849	8	48	350	3,402
67 Syracuse University	3,800	3,634	3,183	2,703	293	903	414	2,190
68 University of Florida	3,636	4,507	3,300	2,188	756	259	811	1,810
69 Yale University	3,570	2,903	2,660	2,801	1,538	46	179	1,807
70 The University of Alabama	3,504	2,620	2,762	2,538	1,462	313	479	1,250
Total, 1st 70 insts.	644,443	587,783	545,727	492,658	178,448	121,156	125,930	218,909
71 Univ of Hawaii-Manoa	3,473	3,379	3,157	2,764	789	2	165	2,517
72 Mississippi State Univ	3,414	3,736	3,350	2,906	1,710	276	702	726
73 SUNY at Albany	3,277	3,696	4,211	3,966	0	395	855	2,027
74 Univ of Alaska Fairbanks	3,077	2,397	2,985	2,106	188	0	1,734	1,155
75 N C State Univ at Raleigh	3,044	3,422	3,790	2,377	2,403	0	641	0
76 Northern Illinois Univ	3,044	3,379	2,769i	2,286	141	2,228	424	251
77 University of Chicago	2,911	2,145	4,079	3,549	197	1,226	172	1,316
78 Oregon State University	2,868	2,748	2,300	2,299	2,018	13	759	78
79 Texas Tech University	2,780	3,299	3,999	3,615	771	178	1,567	264
80 US Naval Postgrad School	2,743	3,490	2,748	3,031	769	1,462	512	0
Total, 1st 80 insts.	675,074	619,474	579,115	521,557	187,434	126,936	133,461	227,243
81 Fort Valley State College	2,711	2,370	0i	0	1,788	0	923	0
82 SUNY at Binghamton	2,670	1,866	2,856	2,322	464	184	315	1,707
83 Brown University	2,649	635	283	308	624	310	610	1,105
84 Wayne State University	2,603	2,042	1,597	1,067	134	14	199	2,256
85 Desert Research Institute	2,580	1,977	1,680	1,643	0	0	0	2,580
86 University of Miami	2,554	2,451	1,808	1,531	50	0	844	1,660
87 Univ of Ark Fayetteville	2,476	2,569	2,062	1,721	77	287	154	1,958
88 Georgetown University	2,414	3,251	3,389	4,824	50	102	1,548	714
89 Univ of Rhode Island	2,389i	2,269	1,553	609i	1,919i	0i	111	459i
90 Univ of Cal Davis	2,353	2,143	1,924	1,589	99	1,135	166	953
Total, 1st 90 insts.	700,473	641,047	596,267	537,171	192,639	128,968	138,231	240,635
91 Univ of Cal San Diego	2,345	2,168	2,110	1,770	449	689	197	1,010
92 Univ of Nebraska-Lincoln	2,300	2,808	2,774	2,651	1,572	212	284	232
93 West Virginia University	2,202	1,586	1,170	707	1,559	126	310	207
94 SUNY at Stony Brook	2,130	2,308	3,197	2,594	605	695	170	660
95 Univ of Maine Orono	1,935	1,622	1,323	905	1,048	0	21	866
96 Illinois State University	1,928	1,564	1,663	1,573	0	16	1	1,911
97 Northeast Louisiana Univ	1,913	618	471	126	88	0	0	1,825
98 Univ of Cal Santa Cruz	1,908	924	591	783	147	74	1,135	552
99 North Dakota State Univ	1,862	1,041	895	566	1,815	0	47	0
100 Univ of New Hampshire	1,848	1,991	1,123	2,084	0	56	931	861
Total, 1st 100 insts.	720,844	657,677	611,584	550,930	199,922	130,836	141,327	248,759
Total, all other sampled insts.	83,880	83,916	84,367	75,912	21,369	11,876	21,649	28,986
Estimated total non-sampled insts.	12,485	13,553	10,358	10,091	3,369	930	2,655	5,530

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-65. Federally financed R&D expenditures in the social sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Social sciences total				1992 subfields			
	1992	1991	1990	1989	Economics	Political science	Sociology	Other
Total, all institutions	278,430	251,528	225,720	211,776	66,126	35,813	82,377	94,114
1 University of Michigan	15,910	13,963	12,745	15,829	6,954	1,227	5,682	2,047
2 Univ of Wis-Madison	12,410	10,684	10,311	9,899	3,762	100	3,848	4,700
3 Harvard University	11,130	10,922	12,316	14,527	1,260	6,905	337	2,628
4 Ohio State University	9,075	11,382	9,098	8,857	2,856	816	143	5,260
5 Univ of NC at Chapel Hill	8,274	6,406	5,721	5,794	33	1	3,569	4,671
6 Univ of Pennsylvania	7,221	4,324	3,287	4,052	1,114	486	664	4,957
7 Rutgers the St Univ of NJ	6,446	5,776	4,437	3,334	79	1,580	1,931	2,856
8 Univ of MD College Park	5,840	4,030	2,574	1,479	2,489	88	519	2,744
9 University of Oklahoma	5,835	4,489	576	488	232	17	15	5,571
10 Brandeis University	5,639	5,128	3,870	3,859	56	5	5,468	110
Total, 1st 10 insts.	87,780	77,104	64,935	68,118	18,835	11,225	22,176	35,544
11 Univ of Cal Berkeley	5,385	6,485	6,224	5,518	2	1,004	1,614	2,765
12 Temple University	5,331	4,987	4,597	2,568	0	1	5,216	114
13 Duke University	4,659	2,883	3,876	4,531	965	861	1,645	1,188
14 University of Washington	4,564	3,844	2,919	2,857	14	4,070	260	220
15 Univ of Cal Santa Barbara	4,411	3,177	2,895	1,279	751	0	60	3,600
16 Georgia Institute of Tech	4,347	4,876	2,959	2,304	4,139	50	118	40
17 Johns Hopkins Univ	4,315	5,409	5,274	6,036	346	36	3,385	548
18 Columbia Univ Main Div	4,018	3,477	2,534	4,134	181	182	3,655	0
19 Iowa St U of Sci & Tech	3,738	2,647	1,792	1,693	792	0	2,858	88
20 Colorado State University	3,673	3,598	3,074	2,190	291	56	613	2,713
Total, 1st 20 insts.	132,221	118,487	101,079	101,228	26,316	17,485	41,600	46,820
21 Tulane University	3,653	3,004	1,835	287	0	0	1,380	2,273
22 Univ. of Colorado	3,557	2,638	2,672	1,513	1,102	173	1,888	394
23 Michigan State University	3,525	3,270	3,089	2,027	3,195	89	14	227
24 Pennsylvania State Univ	3,380	4,194	2,996	2,091	886	63	1,956	475
25 University of Minnesota	3,193	4,204	3,877	3,025	1,063	497	1,583	50
26 University of Ill Urbana	3,024	2,967	2,615	2,414	1,001	336	168	1,519
27 Vanderbilt University	2,973	2,187	1,087	181	0	2,763	59	151
28 University of Delaware	2,717	1,672	867	477	10	0	2,650	57
29 US Naval Postgrad School	2,715	3,490	2,748	3,031	741	1,462	512	0
30 Carnegie-Mellon Univ	2,678	2,121	1,863	1,754	1,350	437	891	0
Total, 1st 30 insts.	163,636	148,234	124,728	118,028	35,664	23,305	52,701	51,966
31 Univ of Texas at Austin	2,479	3,691	3,269	3,467	506	314	1,269	390
32 Univ of Cal Los Angeles	2,394	2,434	2,605	2,563	138	91	154	2,011
33 Univ of Southern Cal	2,389	2,158	1,479	1,217	32	90	2,110	157
34 Fort Valley State College	2,384	2,047	01	0	1,572	0	812	0
35 Cornell University	2,377	1,902	1,880	2,047	1,025	16	555	781
36 Washington State Univ	2,361	2,075	1,942	1,994	1,569	0	554	238
37 SUNY at Albany	2,346	2,665	3,075	2,782	0	82	449	1,815
38 Univ of Cal Irvine	2,305	1,737	1,229	1,321	0	1,292	450	563
39 George Washington Univ	2,268	134	81	162	0	2,030	78	160
40 Arizona State University	2,193	1,863	2,076	487	20	13	34	2,126
Total, 1st 40 insts.	187,132	168,940	142,364	134,068	40,526	27,233	59,166	60,207
41 Texas A & M University	2,142	1,531	1,639	2,188	1,413	129	493	107
42 University of Arizona	2,118	1,915	1,687	1,830	1,337	19	491	271
43 Univ of Wis-Milwaukee	2,032	1,532	865	692	182	235	0	1,635
44 Desert Research Institute	2,006	1,584	1,265	1,210	0	0	0	2,006
45 Univ of South Carolina	1,850	1,735	1,415	1,129	613	311	380	546
46 Northeast Louisiana Univ	1,800	589	444	0	0	0	0	1,800
47 Univ of Missouri Columbia	1,798	1,445	1,402	1,073	1,217	4	295	282
48 University of Miami	1,767	2,047	1,394	1,208	36	0	694	1,037
49 Mass Inst of Technology	1,691	1,285	927	1,310	730	401	0	560
50 Purdue University	1,613	1,419	1,454	1,465	636	5	907	65
Total, 1st 50 insts.	205,949	184,002	154,856	146,173	46,670	28,337	62,426	68,516

See explanatory information and SOURCE at end of table.

Table B-65. Federally financed R&D expenditures in the social sciences at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Social sciences total				1992 subfields			
	1992	1991	1990	1989	Economics	Political science	Sociology	Other
51 Univ of Rhode Island	1,803i	1,508	1,012	179i	1,603i	0i	0i	0i
52 Princeton University	1,564	1,063	1,031	1,472	261	1,134	169	0
53 Univ. Of Tennessee System	1,560	1,258	1,491	1,367	1,112	292	77	79
54 Clemson University	1,481	1,400	1,419	1,303	1,168	95	32	186
55 Stanford University	1,464	1,394	838	1,485	509	147	371	437
56 Georgetown University	1,394	2,188	2,372	3,365	32	0	966	396
57 Texas Tech University	1,370	1,272	1,631	1,468	167	73	1,088	42
58 University of Georgia	1,368	1,564	1,504	1,705	715	39	152	462
59 Univ of Cal Santa Cruz	1,336	353	131	128	69	0	1,034	233
60 VA Polytech Inst & St U	1,318	1,436	2,200	1,225	182	0	17	1,137
Total, 1st 60 insts.	220,405	197,438	168,485	159,870	52,468	30,117	66,332	71,488
61 University of New Mexico	1,281	961	785	1,032	13	117	304	847
62 Univ of New Hampshire	1,269	1,205	867	1,742	0	0	607	662
63 University of Kentucky	1,239	785	744	567	479	6	724	30
64 Mississippi State Univ	1,228	1,077	1,151	770	556	2	271	399
65 Northern Illinois Univ	1,216	1,323	1,161i	1,053	0	975	163	78
66 Portland State University	1,200	875	950	699	0	0	5	1,195
67 American University	1,138	1,390	1,273	979	0	325	366	447
68 N C State Univ at Raleigh	1,131	876	833	655	878	0	253	0
69 University of Iowa	1,101	1,230	904	791	172	319	322	288
70 Oregon State University	1,058	855	693	706	646	0	358	54
Total, 1st 70 insts.	232,266	208,015	177,846	168,864	55,212	31,861	69,705	75,488
71 University of Pittsburgh	1,015	1,339	1,264	1,021	170	184	0	661
72 New York University	999	577	356	793	313	463	71	152
73 New Mexico State Univ	975	448	262i	219	847	0	47	81
74 Fordham University	954	693	801	815	0	0	954	0
75 University of Florida	925	1,303	663	443	99	13	260	553
76 Brown University	917	425	144	213	5	0	178	734
77 SUNY at Stony Brook	865	926	1,521	958	198	291	4	372
78 SUNY at Binghamton	864	66	332	183	19	0	0	845
79 South Carolina St College	862i	544i	544i	340i	726i	0i	136i	0i
80 Southern Methodist Univ	849	63	666i	378	1	0	15	833e
Total, 1st 80 insts.	241,491	214,399	184,399	174,227	57,590	32,812	71,370	79,719
81 Indiana University	840	823	997	879	123	85	256	376
82 Case Western Reserve Univ	828	649	603	613	50	0	218	560
83 SUNY at Buffalo	822	521	1,139	924	0	2	15	805
84 Washington University	791	856	145	211	0	88	699	4
85 Oklahoma State University	790	748	1,035	283	663	0	39	88
86 University of Rochester	743	791	424	395	242	501	0	0
87 Florida State University	705	1,066	1,064	710	21	0	153	531
88 Syracuse University	702	739	827	956	0	16	0	686
89 Cleveland State Univ	674	1,028	1,010	465	0	21	593	60
90 Yale University	670	770	544	949	313	0	153	204
Total, 1st 90 insts.	249,056	222,410	192,187	180,612	59,002	33,525	73,496	83,033
91 Univ of Ill Chicago	666	555	817	522	8	0	6	652
92 Univ of Mass - Boston	661	--	--	--	0	0	199	462
93 University of Montana	633	688	744	51	47	0	0	586
94 Louisiana State Univ Sys	624	464	234	110	128	56	83	357
95 North Dakota State Univ	604	565	466	343	563	0	41	0
96 University of Denver	602	501	168	218	0	159	121	322
97 Univ of Cal Davis	583	528	474	361	28	27	79	449
98 Illinois State University	557	499	300	123	0	0	0	557
99 University of Connecticut	549	216	339	390	459	18	72	0
100 University of Oregon	545	546	567	555	76	119	0	350
Total, 1st 100 insts.	255,080	226,521	196,296	183,285	60,311	33,904	74,097	86,768
Total, all other sampled insts.	21,068	22,309	26,799	26,153	5,261	1,895	7,544	6,368
Estimated total non-sampled insts.	2,282	2,698	2,625	2,338	554	14	736	978

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-66. Current fund expenditures for research equipment at universities and colleges, by science and engineering field and source of funds: fiscal years 1985, 1991, and 1992

[Dollars in thousands]

Field	Total			Federal			Non-Federal		
	1985	1991	1992	1985	1991	1992	1985	1991	1992
Total	671,312	1,026,467	1,051,918	432,244	607,615	615,176	239,068	418,852	436,743
Engineering, total	124,356	233,946	238,919	78,294	134,630	126,076	46,062	99,316	112,842
Aeronautical and astronautical	6,563	17,369	11,683	4,924	14,467	8,581	1,639	2,902	3,102
Chemical	11,372	19,994	20,278	6,680	9,797	10,112	4,692	10,197	10,166
Civil	10,387	18,001	15,606	6,090	8,130	6,935	4,297	9,871	8,672
Electrical	32,736	51,632	58,860	22,418	29,902	33,723	10,318	21,730	25,136
Mechanical	17,469	34,108	32,628	11,379	17,551	19,089	6,090	16,558	13,539
Metallurgical and materials 1/	--	33,381	29,085	--	20,006	13,696	--	13,376	15,389
Other, n.e.c.	45,829	59,461	70,778	26,803	34,777	33,941	19,026	24,683	36,837
All sciences, total	546,958	792,521	813,000	353,950	472,984	489,099	193,006	319,536	323,901
Physical sciences	141,775	190,586	199,964	113,207	139,503	151,625	28,568	51,082	48,339
Astronomy	7,019	14,188	13,963	4,863	8,753	9,634	2,156	5,435	4,329
Chemistry	53,924	70,288	71,873	41,358	47,539	50,802	12,566	22,749	21,070
Physics	71,227	85,375	91,009	60,173	66,702	73,027	11,054	18,673	17,983
Other, n.e.c.	9,605	20,734	23,119	6,813	16,509	18,162	2,792	4,225	4,957
Environmental sciences	47,805	70,574	78,588	32,357	43,637	51,985	15,448	26,937	26,603
Atmospheric	8,272	10,187	10,820	6,962	7,718	8,345	1,310	2,469	2,475
Earth sciences	18,241	28,715	30,828	10,283	15,386	17,395	7,958	13,328	13,433
Oceanography	16,136	19,957	28,273	11,976	14,464	21,447	4,160	5,493	6,826
Other, n.e.c.	5,156	11,715	8,667	3,136	6,069	4,798	2,020	5,646	3,869
Mathematical sciences	6,014	11,070	10,191	4,936	6,613	6,714	1,078	4,456	3,477
Computer sciences	35,452	58,774	45,404	29,408	43,574	29,534	6,044	15,200	15,870
Life sciences	282,498	411,027	430,557	157,034	217,939	228,738	125,464	193,088	201,820
Agricultural sciences	51,631	53,269	59,047	15,025	16,263	21,421	36,606	37,005	37,625
Biological sciences	104,699	166,398	175,509	70,508	99,904	106,314	34,191	66,493	69,195
Medical sciences	114,478	169,532	173,624	65,764	90,691	91,640	48,714	78,841	81,984
Other, n.e.c.	11,690	21,829	22,378	5,737	11,080	9,362	5,953	10,749	13,016
Psychology	8,670	11,154	11,318	6,191	7,044	7,200	2,479	4,110	4,118
Social sciences	10,028	14,273	17,786	4,024	5,072	7,384	6,004	9,201	10,402
Economics	2,765	4,542	5,076	982	1,472	2,441	1,783	3,070	2,634
Political science	1,200	2,076	2,642	380	657	1,173	820	1,419	1,469
Sociology	1,964	2,751	3,513	1,056	1,380	1,821	908	1,371	1,692
Other, n.e.c.	4,099	4,904	6,556	1,606	1,563	1,949	2,493	3,340	4,607
Other sciences, n.e.c.	14,714	25,063	19,191	6,793	9,602	5,919	7,921	15,461	13,272

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-67. Current fund expenditures for research equipment at doctorate-granting institutions, by science and engineering field and source of funds: fiscal years 1985, 1991, and 1992

[Dollars in thousands]

Field	Total			Federal			Non-Federal		
	1985	1991	1992	1985	1991	1992	1985	1991	1992
Total	655,681	1,000,704	1,001,228	422,818	593,937	598,326	232,863	406,767	402,902
Engineering, total	121,922	230,741	216,205	77,078	133,570	124,370	44,844	97,171	91,835
Aeronautical and astronautical	6,413	17,217	11,232	4,799	14,433	8,431	1,614	2,784	2,801
Chemical	11,280	19,904	19,732	6,608	9,730	10,085	4,672	10,174	9,647
Civil	10,170	17,255	15,217	5,986	8,060	6,775	4,184	9,195	8,442
Electrical	31,995	50,997	55,509	22,018	29,589	33,342	9,977	21 408	22,167
Mechanical	16,893	33,456	29,915	11,081	17,172	18,274	5,812	16,284	11,641
Metallurgical and materials 1/	--	33,290	28,021	--	19,922	13,687	--	13,368	14,334
Other, n.e.c.	45,171	58,622	56,579	26,586	34,664	33,776	18,585	23,958	22,803
All sciences, total	533,759	769,963	785,023	345,740	460,367	473,956	188,019	309,596	311,067
Physical sciences	137,764	182,023	190,361	110,422	134,368	146,521	27,342	47,655	43,840
Astronomy	6,957	14,188	13,831	4,824	8,753	9,502	2,133	5,435	4,329
Chemistry	51,676	64,656	65,767	39,898	44,458	48,117	11,778	20,198	17,650
Physics	69,620	82,526	87,676	58,942	64,716	70,770	10,678	17,810	16,906
Other, n.e.c.	9,511	20,653	23,087	6,758	16,441	18,132	2,753	4,212	4,955
Environmental sciences	46,379	68 115	74,588	31,598	41,760	50,496	14,781	26,355	24,092
Atmospheric	8,174	9,077	10,579	6,871	7,609	8,299	1,303	2,368	2,280
Earth sciences	17,632	28,145	28,536	10,078	15,032	17,030	7,554	13,113	11,506
Oceanography	15,776	18,515	27,194	11,781	13,178	20,639	3,995	5,337	6,555
Other, n.e.c.	4,797	11,478	8,279	2,868	5,941	4,528	1,929	5,537	3,751
Mathematical sciences	5,656	9,571	9,170	4,750	8,173	6,394	906	3,398	2,776
Computer sciences	34,682	57,109	44,020	28,994	42,685	28,970	5,688	14,424	15,050
Life sciences	277,797	404,907	421,156	153,886	214,470	222,563	123,911	190,437	198,593
Agricultural sciences	49,829	50,720	54,722	13,501	14,352	18,138	36,328	36,368	36,584
Biological sciences	102,229	163,096	170,837	69,260	98,520	103,671	32,969	64,576	67,166
Medical sciences	114,133	169,279	173,269	65,444	90,530	91,393	48,689	78,749	81,876
Other, n.e.c.	11,606	21,812	22,328	5,681	11,068	9,361	5,925	10,744	12,967
Psychology	8,190	10,232	10,344	5,875	6,503	6,484	2,315	3,729	3,860
Social sciences	8,961	13,518	16,849	3,648	4,838	6,877	5,315	8,680	9,972
Economics	2,474	4,261	4,609	863	1,345	2,081	1,611	2,916	2,528
Political science	1,059	2,034	2,588	303	657	1,173	756	1,377	1,415
Sociology	1,750	2,490	3,273	973	1,301	1,697	777	1,189	1,576
Other, n.e.c.	3,678	4,733	6,379	1,507	1,535	1,926	2,171	3,198	4,453
Other sciences, n.e.c.	14,330	24,488	18,535	6,569	9,570	5,851	7,761	14,918	12,884

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-68. Current fund expenditures for research equipment at universities and colleges, by science and engineering field, source of funds, and type of control: fiscal year 1992

[Dollars in thousands]

Field	Total			Federal			Non-Federal		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
Total	1,051,918	692,011	359,908	615,176	361,175	254,001	436,743	330,836	105,907
Engineering, total	238,919	161,611	77,307	126,076	70,188	55,888	112,842	91,424	21,419
Aeronautical and astronautical	11,683	7,565	4,118	8,581	5,304	3,277	3,102	2,261	841
Chemical	20,278	13,554	6,724	10,112	6,355	3,757	10,166	7,199	2,967
Civil	15,606	12,697	2,910	6,935	5,140	1,795	8,672	7,557	1,115
Electrical	58,860	36,314	22,545	33,723	17,062	16,662	25,136	19,253	5,884
Mechanical	32,628	18,519	14,109	19,089	9,129	9,960	13,539	9,390	4,149
Metallurgical and materials 1/	29,085	22,089	6,996	13,696	9,468	4,228	15,389	12,621	2,768
Other, n.e.c.	70,778	50,873	19,905	33,941	17,731	16,210	36,837	33,142	3,695
All sciences, total	813,000	530,399	282,601	489,099	290,987	198,113	323,901	239,413	84,488
Physical sciences	199,964	115,624	84,341	151,625	80,968	70,657	48,339	34,656	13,683
Astronomy	13,963	7,116	6,847	9,634	5,013	4,621	4,329	2,103	2,226
Chemistry	71,873	46,462	25,410	50,802	32,118	18,684	21,070	14,344	6,726
Physics	91,009	52,213	38,796	73,027	37,931	35,095	17,983	14,282	3,701
Other, n.e.c.	23,119	9,832	13,287	18,162	5,905	12,257	4,957	3,927	1,030
Environmental sciences	78,588	60,666	17,922	51,985	38,088	13,897	26,603	22,578	4,024
Atmospheric	10,820	8,903	1,917	8,345	6,534	1,811	2,475	2,369	106
Earth sciences	30,828	21,912	8,916	17,395	10,925	6,469	13,433	10,987	2,446
Oceanography	28,273	23,803	4,470	21,447	17,683	3,764	6,826	6,120	706
Other, n.e.c.	8,667	6,048	2,619	4,798	2,945	1,853	3,869	3,103	766
Mathematical sciences	10,191	6,475	3,715	6,714	3,710	3,004	3,477	2,765	712
Computer sciences	45,404	22,782	22,622	29,534	13,071	16,463	15,870	9,711	6,159
Life sciences	430,557	289,714	140,844	228,738	141,001	87,737	201,820	148,713	53,107
Agricultural sciences	59,047	57,399	1,648	21,421	21,093	328	37,625	36,305	1,320
Biological sciences	175,509	111,421	64,087	106,314	63,383	42,931	69,195	48,039	21,156
Medical sciences	173,624	105,855	67,769	91,640	51,984	39,656	81,984	53,870	28,113
Other, n.e.c.	22,378	15,039	7,339	9,362	4,540	4,822	13,016	10,499	2,517
Psychology	11,318	8,106	3,211	7,200	4,780	2,420	4,118	3,326	792
Social sciences	17,786	13,970	3,817	7,384	5,904	1,480	10,402	8,065	2,337
Economics	5,076	3,975	1,101	2,441	2,103	338	2,634	1,871	763
Political science	2,642	1,788	854	1,173	893	280	1,469	895	574
Sociology	3,513	2,907	607	1,821	1,480	341	1,692	1,427	266
Other, n.e.c.	6,556	5,300	1,256	1,949	1,428	521	4,607	3,872	735
Other sciences, n.e.c.	19,191	13,062	6,129	5,919	3,465	2,454	13,272	9,597	3,675

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-69. Total and federally financed current fund expenditures for research equipment at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	1,051,918	1,026,467	1,017,114	990,128	615,176	607,615	604,978	596,001
1 Univ of Wis-Madison	28,145	25,841	29,015	28,875	15,137	13,753	15,693	15,517
2 Mass Inst of Technology	27,186	23,820	21,498	13,957	20,995	18,079	15,468	8,693
3 Stanford University	26,230	21,200	16,496	19,139	24,361	18,764	14,643	16,755
4 Texas A & M University	25,821	14,046	15,743	14,023	16,279	4,818	6,601	4,339
5 University of Ill Urbana	21,951	21,437	19,115	21,841	11,207	9,957	10,635	13,336
6 Cornell University	20,875	21,912	21,461	22,844	14,276	12,504	13,108	14,583
7 Johns Hopkins Univ	19,298	25,567	25,384	26,830	17,488	23,489	23,199	24,712
8 University of Washington	18,834	22,317	16,651	19,316	14,737	16,540	13,871	13,932
9 Louisiana State Univ Sys	16,678	23,377	18,836	14,114	5,168	13,347	10,539	6,015
10 University of Michigan	15,870	16,118	11,881	15,696	9,888	9,446	7,639	10,709
Total, 1st 10 insts.	220,888	215,635	196,080	196,635	149,536	140,697	131,396	128,491
11 Pennsylvania State Univ	14,742	15,118	13,967	18,400	9,201	11,245	7,411	11,384
12 Yale University	13,431	11,063	11,399	11,010	8,033	7,706	8,690	8,329
13 University of Minnesota	12,877	13,470	16,021	15,851	7,825	7,203	8,662	8,621
14 University of Arizona	12,841	13,882	15,894	12,300	8,349	7,710	9,438	7,092
15 Univ of Texas at Austin	12,747	11,542	11,001	11,454	7,751	7,248	6,952	7,875
16 California Inst of Tech	12,276	16,242	14,583	13,371	10,939	14,497	13,176	11,557
17 Harvard University	11,733	8,834	7,291	11,385	8,203	6,839	5,575	9,354
18 Georgia Institute of Tech	10,985	11,137	10,100	11,977	6,173	6,397	5,696	6,723
19 Northwestern University	10,904	10,025	8,919	8,445	4,615	3,477	4,114	4,001
20 Columbia Univ Main Div	10,788	11,552	11,709	10,443	9,492	9,526	10,044	8,192
Total, 1st 20 insts.	344,212	338,500	316,964	321,271	230,117	222,545	211,154	211,619
21 University of Utah	10,462	8,044	7,398	5,489	5,632	4,283	3,245	3,746
22 N C State Univ at Raleigh	10,396	12,736	10,588	10,364	5,052	5,516	4,568	4,747
23 Univ of Pennsylvania	10,277	9,289	10,867	9,436	7,447	6,650	7,680	6,671
24 Duke University	9,941	11,203	8,598	8,451	6,295	8,045	5,624	6,062
25 University of Rochester	9,899	7,788	10,730	11,453	7,901	5,899	8,914	9,142
26 Univ of Southern Cal	9,878	10,530	9,522	9,879	8,094	9,103	7,795	8,346
27 University of Chicago	9,657	7,495	9,067	8,929	7,372	6,251	7,937	7,932
28 University of Georgia	9,637	9,480	9,656	8,819	3,168	3,205	2,699	2,931
29 Indiana University	9,589	5,890	5,789	6,115	5,148	3,572	3,934	4,908
30 Washington University	9,219	8,262	8,921	7,523	6,552	5,952	6,108	5,614
Total, 1st 30 insts.	443,167	429,207	408,100	407,729	292,778	281,021	269,658	271,718
31 Univ of Cal San Diego	8,983	12,227	10,989	8,630	6,360	7,864	7,215	6,957
32 Univ of Cal San Francisco	8,779	7,661	7,032	7,677	5,145	4,889	4,724	5,107
33 Baylor Col of Medicine	8,565	8,765	8,451	11,511	3,822	4,209	3,964	5,924
34 Univ. of Colorado	8,487	8,311	8,336	8,079	6,640	6,494	6,380	6,614
35 Carnegie-Mellon Univ	8,296	7,618	8,358	8,027	5,962	5,006	5,913	5,953
36 Purdue University	8,272	7,899	7,690	9,112	5,565	4,516	4,870	6,211
37 Univ of MD College Park	8,175	5,638	9,798	9,648	4,584	4,803	4,255	3,576
38 University of Miami	7,956	9,024	9,738	4,842	6,091	6,720	6,225	3,263
39 Univ of NC at Chapel Hill	7,536	8,212	7,192	7,901	4,399	4,227	4,254	4,774
40 University of Iowa	7,352	7,840	8,033	8,772	3,877	3,278	3,974	4,904
Total, 1st 40 insts.	525,568	512,402	493,717	491,928	345,223	333,027	321,432	325,001
41 Ohio State University	7,339	8,702	6,849	6,693	4,204	3,894	3,020	3,064
42 Wayne State University	7,086	4,859	4,828	7,161	1,201	1,102	892	2,004
43 Univ of Cal Berkeley	6,771	5,737	6,562	7,077	4,522	4,285	4,728	5,721
44 University of Virginia	6,768	5,093	5,218	5,487	4,681	3,488	3,630	3,995
45 New Mexico State Univ	6,700	14,508	8,043	1,579	6,044	13,768	6,170	1,162
46 Univ of Cal Los Angeles	6,697	7,433	9,671	7,995	3,489	4,810	5,820	5,240
47 Case Western Reserve Univ	6,571	5,441	5,005	4,571	4,463	3,989	3,779	3,641
48 SUNY at Stony Brook	6,495	5,912	7,366	5,426	4,101	4,722	6,335	4,427
49 University of Kentucky	6,494	3,258	2,750	2,963	1,230	1,046	1,283	1,469
50 Clemson University	6,396	3,162	4,999	4,962	1,210	751	680	741
Total, 1st 50 insts.	592,885	576,507	555,008	545,842	380,368	374,882	357,769	356,465

See explanatory information and SOURCE at end of table.

Table B-69. Total and federally financed current fund expenditures for research equipment at universities and colleges: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
51 Arizona State University	6,365	6,488	7,571	5,280	2,373	1,698	1,920	3,057
52 University of Pittsburgh	6,315	5,798	6,309	5,202	4,900	3,964	4,822	3,947
53 Princeton University	6,279	4,792	6,184	6,040	3,869	4,034	4,875	5,110
54 Oregon State University	6,242	3,769	6,284	4,159	5,515	3,027	5,287	2,808
55 University of Florida	6,202	6,996	9,622	9,753	1,975	2,795	5,059	5,022
56 University of Oklahoma	6,021	4,434	4,150	4,207	1,182	723	1,110	1,361
57 Iowa St U of Sci & Tech	5,971	11,477	6,258	4,159	3,477	7,400	2,737	2,091
58 Rutgers the St Univ of NJ	5,967	6,337	6,423	7,850	1,840	2,138	1,665	1,642
59 San Jose State University	5,958	983	219	496	553	846	133	374
60 Michigan State University	5,763	5,653i	5,543	6,205	3,787	2,615i	3,967	4,570
Total, 1st 60 insts.	653,968	633,234	613,571	599,193	409,839	404,122	389,344	386,447
61 Univ. Of Tennessee System	5,755	6,638	5,501	7,420	3,026	2,377	2,538	2,947
62 Univ of Cal Davis	5,681	4,936	5,904	5,465	2,665	2,440	3,084	3,268
63 Univ of Nebraska-Lincoln	5,528	7,017	5,586	5,114	1,326	1,692	1,209	1,082
64 University of New Mexico	5,524	3,998	3,126	4,728	2,825	1,728	1,476	2,837
65 U of Houston	5,456	4,083	4,640	4,523	1,786	1,563	2,088	2,444
66 Univ of Missouri Columbia	5,350	5,870	4,489	4,786	1,420	1,552	683	1,341
67 U Tex Med Brnch Galveston	5,133	2,229	1,944	2,025	1,401	1,211	1,275	1,610
68 Univ of Ill Chicago	5,094	4,851	5,773	6,287	2,449	1,611	3,031	2,973
69 SUNY at Buffalo	5,044	4,915	5,081	6,225	3,157	3,078	3,295	3,324
70 Emory University	5,024	4,896	5,372	5,257	3,939	3,112	2,805	3,251
Total, 1st 70 insts.	707,557	682,667	660,987	651,023	433,833	424,486	410,828	411,524
71 Univ of South Florida	4,959	4,239	7,360	5,205	1,352	1,757	3,735	2,847
72 Syracuse University	4,874	4,052	4,626	3,149	873	788	2,469	1,648
73 Univ Alabama Birmingham	4,759	4,322	5,184	5,474	3,049	2,572	3,173	3,275
74 Kans St U - Ag & App Sci	4,694	3,722	3,043	3,791	2,421	1,542	1,146	1,666
75 Vanderbilt University	4,608	4,904	5,017	4,855	3,575	4,229	4,542	4,526
76 Rockefeller University	4,401	4,095	3,949	3,820	2,026	1,884	1,817	1,758
77 University of Cincinnati	4,305	3,642	4,706	4,433	2,983	1,559	2,713	2,668
78 Mississippi State Univ	4,268	2,358	1,818	3,861	2,826	1,435	726	1,282
79 Rensselaer Polytech Inst	4,228	4,316	5,728	3,717	2,675	2,266	3,424	2,061
80 Univ of MD Balt Prof Sch	4,209	3,956	4,654	6,022	1,331	1,093	1,274	1,722
Total, 1st 80 insts.	752,862	722,273	707,072	695,350	456,944	443,611	435,847	434,977
81 UT SW Medical Ctr-Dallas	4,203	6,364	5,772	5,153	1,451	2,335	2,283	1,893
82 Colorado State University	4,182	5,376	4,967	5,724	2,908	4,466	4,257	4,896
83 University of Connecticut	4,134	4,947	4,293	5,830	1,462	2,039	1,647	3,006
84 Boston University	4,130	3,502	3,593	2,588	3,345	2,806	2,777	2,200
85 US Naval Postgrad School	4,081	4,614	3,369	3,776	4,026	4,614	3,352	3,750
86 New York University	4,071	3,349	3,726	3,485	3,075	2,533	2,815	2,842
87 Univ of South Carolina	3,983	6,543	5,563	3,350	1,151	1,236	2,514	1,322
88 Stevens Institute of Tech	3,922	1,363	1,343	643	2,204	148	1,067	553
89 Brown University	3,814	3,506	4,883	2,905	2,744	2,271	3,905	2,439
90 Univ of Cal Irvine	3,772	4,137	4,116	3,396	2,443	3,151	3,131	2,539
Total, 1st 90 insts.	793,154	765,974	748,697	732,200	481,753	469,210	463,595	460,417
91 Utah State University	3,692	3,882	2,347	2,907	1,363	1,309	725	681
92 Univ of Hawaii-Manoa	3,668	1,824	2,529	3,945	2,895	627	653	1,455
93 Woods Hole Oceanographic Inst	3,586	4,160i	4,734	8,067	2,886	3,629i	4,219	7,714
94 San Diego State Univ	3,582	3,210	3,170	2,279	910	1,136	1,060	638
95 Univ of Mass - Amherst	3,582	--	--	--	2,298	--	--	--
96 University of Kansas	3,481	2,916	3,420	2,916	1,763	1,279	1,264	1,240
97 SUNY at Albany	3,477	1,023	1,117	2,778	3,156	662	383	554
98 University of Notre Dame	3,462	2,928	2,929	4,022	1,988	1,282	1,593	2,097
99 Tulane University	3,409	3,170	3,796	3,48[illegible]	1,593	2,058	1,881	850
100 Oklahoma State University	3,102	3,897	4,432	3,[illegible]	748	1,564	2,262	1,519
Total, 1st 100 insts.	828,195	792,984	777,171	766,471	501,353	482,756	477,635	477,165
Total, all other sampled insts.	194,831	220,883	225,809	210,475	108,107	119,840	122,780	113,694
Estimated total non-sampled insts.	28,892	12,600	14,134	13,182	5,716	5,019	4,563	5,142

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-70. R&D expenditures at university-administered federally funded research and development centers, by character of work: fiscal years 1953-92

[Dollars in millions]

Fiscal year	Total	Character of work			
		Basic research		Applied research and development	
		Amount	Percent of total	Amount	Percent of total
1953	121	33	27.3	88	72.7
1954	141	39	27.7	102	72.3
1955	180	49	27.2	131	72.8
1956	194	51	26.3	143	73.7
1957	240	65	27.1	175	72.9
1958	293	78	26.6	215	73.4
1959	338	92	27.2	246	72.8
1960	360	97	26.9	263	73.1
1961	410	115	28.0	295	72.0
1962	470	136	28.9	334	71.1
1963	530	159	30.0	371	70.0
1964	629	191	30.4	438	69.6
1965	629	208	33.1	421	66.9
1966	630	227	36.0	403	64.0
1967	673	250	37.1	423	62.9
1968	719	276	38.4	443	61.6
1969	725	275	37.9	450	62.1
1970	737	269	36.5	468	63.5
1971	716	260	36.3	456	63.7
1972	753	244	32.4	509	67.6
1973	817	296	36.2	521	63.8
1974	865	390	45.1	475	54.9
1975	987	439	44.5	548	55.5
1976	1,147	512	44.6	635	55.4
1977	1,384	600	43.4	784	56.6
1978 1/	1,717	--	--	--	--
1979	1,935	1,022	52.8	913	47.2
1980	2,246	1,132	50.4	1,114	49.6
1981	2,486	1,270	51.1	1,216	48.9
1982	2,479	1,327	53.5	1,152	46.5
1983	2,737	1,484	54.2	1,253	45.8
1984	3,150	1,690	53.7	1,461	46.4
1985	3,523	1,765	50.1	1,758	49.9
1986	3,895	1,876	48.2	2,018	51.8
1987	4,206	2,033	48.3	2,173	51.7
1988	4,531	2,245	49.5	2,285	50.4
1989	4,730	2,352	49.7	2,377	50.3
1990	4,832	2,428	50.2	2,404	49.8
1991	5,079	2,595	51.1	2,484	48.9
1992	5,249	2,844	54.2	2,404	45.8

1/ Separate data for basic research and applied research and development were not collected for fiscal year 1978.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-71. R&D expenditures at university-administered federally funded research and development centers, by science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Field	1985	1986	1987	1988	1989	1990	1991	1992
Total	3,523,092	3,894,806	4,206,084	4,530,562	4,729,612	4,831,971	5,078,544	5,248,676
Engineering, total	1,296,043	1,445,252	1,547,061	1,614,250	1,642,799	1,708,134	1,788,565	1,797,173
Aeronautical and astronautical	107,065	126,566	132,238	146,894	145,035	143,643	156,265	177,852
Chemical	40,082	40,048	41,884	43,964	40,162	40,754	43,356	74,889
Civil	15,597	16,014	17,568	17,500	16,439	15,083	16,109	33,635
Electrical	454,233	514,263	550,430	555,635	568,626	604,894	613,344	592,891
Mechanical	489,469	540,103	570,698	602,857	628,057	627,262	646,379	545,245
Metallurgical and materials 1/	--	--	--	--	--	3,481	25,833	54,926
Other, n.e.c.	189,597	208,258	234,243	247,400	244,480	273,017	287,279	317,735
All sciences, total	2,227,049	2,449,554	2,659,023	2,916,312	3,086,813	3,123,837	3,289,979	3,451,503
Physical sciences	1,448,808	1,540,627	1,660,404	1,717,181	1,828,314	1,824,648	1,917,223	2,017,123
Astronomy	73,330	79,047	82,360	117,658	112,493	112,239	121,353	143,448
Chemistry	226,440	246,911	261,267	274,647	274,359	261,048	251,787	268,092
Physics	1,097,949	1,159,738	1,257,808	1,263,616	1,378,015	1,382,608	1,460,765	1,499,740
Other, n.e.c.	51,089	54,931	58,969	61,260	63,447	68,753	83,318	105,843
Environmental sciences	200,074	232,606	257,800	289,352	298,529	292,045	318,874	339,434
Atmospheric	83,498	99,017	103,504	91,069	98,594	103,239	112,978	152,559
Earth sciences	46,552	50,361	76,276	80,190	65,212	64,894	71,341	79,898
Oceanography	16,056	19,489	2,032	1,764	1,916	1,664	2,226	17,117
Other, n.e.c.	53,968	63,739	75,988	116,329	132,807	122,248	132,329	89,860
Mathematical sciences	92,858	109,102	121,793	126,084	128,664	135,374	132,222	124,313
Computer sciences	338,116	427,297	472,766	621,744	668,092	685,954	715,744	713,878
Life sciences	110,905	107,506	115,416	123,508	130,556	142,394	145,531	191,166
Agricultural sciences	633	663	684	1,397	1,175	1,017	1,041	1,153
Biological sciences	82,057	85,195	87,202	91,712	101,287	112,559	115,145	139,047
Medical sciences	10,729	8,572	10,570	12,996	10,114	10,345	11,355	16,250
Other, n.e.c.	17,486	13,076	16,960	17,403	17,980	18,473	17,990	34,716
Psychology	264	294	899	973	947	1,010	1,076	945
Social sciences	17,591	19,343	21,421	27,868	23,291	29,744	33,935	21,417
Economics	4,401	4,043	2,554	1,477	491	632	741	613
Political science	4,038	4,994	4,563	5,843	3,858	6,459	7,610	5,055
Sociology	0	0	0	0	0	0	0	0
Other, n.e.c.	9,152	10,306	14,304	20,548	18,942	22,653	25,584	15,749
Other sciences, n.e.c.	18,433	12,779	8,524	9,602	8,420	12,668	25,375	43,227

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-72. Federally financed R&D expenditures at university-administered federally funded research and development centers, by science and engineering field: fiscal years 1985-92

[Dollars in thousands]

Field	1985	1986	1987	1988	1989	1990	1991	1992
Total	3,476,699	3,862,913	4,174,718	4,498,909	4,692,202	4,791,517	5,034,126	5,199,391
Engineering, total	1,284,767	1,435,137	1,539,481	1,607,422	1,633,585	1,699,499	1,778,735	1,787,089
Aeronautical and astronautical	106,959	126,481	132,169	146,813	144,910	143,495	156,108	177,732
Chemical	39,463	39,364	41,378	43,427	39,534	40,218	42,671	74,015
Civil	15,369	15,815	17,415	17,335	16,238	14,892	15,871	33,120
Electrical	450,988	511,852	548,560	554,139	566,345	602,489	611,006	590,951
Mechanical	485,027	536,435	567,922	600,584	624,909	624,402	643,332	542,400
Metallurgical and materials 1/	--	--	--	--	--	3,481	25,778	54,910
Other, n.e.c.	186,961	205,190	232,037	245,124	241,649	270,522	283,969	313,961
All sciences, total	2,191,932	2,427,776	2,635,237	2,891,487	3,058,617	3,092,018	3,255,391	3,412,302
Physical sciences	1,433,957	1,529,586	1,649,404	1,707,217	1,813,116	1,805,714	1,898,561	1,999,599
Astronomy	71,401	77,127	80,418	115,601	110,724	110,708	120,725	143,007
Chemistry	223,816	244,779	259,457	272,970	271,891	258,738	248,897	265,286
Physics	1,088,499	1,153,577	1,251,388	1,258,268	1,368,531	1,370,313	1,449,997	1,491,078
Other, n.e.c.	50,241	54,103	58,141	60,378	61,970	65,955	78,942	100,228
Environmental sciences	188,653	229,989	254,889	286,106	294,192	288,489	314,269	325,990
Atmospheric	73,684	98,069	102,269	89,620	96,625	101,226	110,990	141,688
Earth sciences	45,883	49,815	75,782	79,720	64,938	64,418	70,364	78,950
Oceanography	16,056	19,489	2,032	1,764	1,916	1,664	2,226	17,117
Other, n.e.c.	53,030	62,616	74,806	115,002	130,713	121,181	130,689	88,235
Mathematical sciences	91,770	108,196	121,075	125,434	127,724	134,246	131,130	123,471
Computer sciences	337,117	426,508	472,142	621,172	667,127	684,876	713,894	712,478
Life sciences	108,862	105,540	111,233	117,451	126,607	136,719	138,335	196,711
Agricultural sciences	633	663	684	1,397	1,175	1,017	1,041	1,153
Biological sciences	80,430	83,955	85,767	90,372	97,639	107,206	108,423	135,405
Medical sciences	10,583	8,006	7,973	8,451	10,061	10,304	11,161	15,987
Other, n.e.c.	17,216	12,916	16,809	17,231	17,732	18,192	17,710	34,166
Psychology	264	294	899	973	947	1,010	1,075	945
Social sciences	16,751	18,661	20,890	27,551	22,942	29,231	33,325	21,074
Economics	3,773	3,563	2,195	1,441	491	632	741	613
Political science	3,979	4,930	4,523	5,781	3,799	6,348	7,471	4,989
Sociology	0	0	0	0	0	0	0	0
Other, n.e.c.	8,999	10,168	14,172	20,329	18,652	22,253	25,113	15,492
Other sciences, n.e.c.	14,558	9,002	4,705	5,583	5,962	11,733	24,802	42,034

1/ Data for metallurgical and materials engineering were not collected separately prior to fiscal year 1990.

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-73. R&D expenditures at university-administered federally funded research and development centers, by science and engineering field: fiscal year 1992

[Dollars in thousands]

Institution ranking	Total	Engi-neering	Physical sciences	Environ-mental sciences	Math & computer sciences	Life sciences	Psy-chology	Social sciences	Other sciences
Total, all institutions	5,248,676	1,797,173	2,017,123	339,434	838,191	191,166	945	21,417	43,227
1 Jet Propulsion Laboratory	1,136,966	442,961	92,596	85,350	516,059	0	0	0	0
2 Lawrence Livermore Lab	1,055,600	458,970	388,575	31,857	143,286	32,912	0	0	0
3 Los Alamos National Lab	1,011,005	366,995	421,589	7,077	94,023	66,726	0	20,220	34,375
4 Argonne Natl Laboratory	440,648	205,890	119,532	90,412	6,948	17,866	0	0	0
5 Lincoln Laboratory	364,212	254,818	69,455	2,280	37,659	0	0	0	0
6 Brookhaven Nat'l Lab 1/	298,112	48,007	210,701	11,181	1,266	25,671	0	1,056	230
7 Lawrence Berkeley Lab	239,405	10,461	164,595	13,722	3,120	39,675	0	0	7,832
8 Fermi Nat Accel Lab 2/	197,653	0	197,653	0	0	0	0	0	0
9 Stfrd Linear Accelrtr Ctr	117,715	0	117,715	0	0	0	0	0	0
10 Plasma Physics Laboratory	110,209	0	110,209	0	0	0	0	0	0
Total, 1st 10 insts.	4,971,525	1,788,102	1,892,620	241,879	802,361	182,850	0	21,276	42,437
11 Natl Ctr Atmos Res 3/	95,510	0	0	95,510	0	0	0	0	0
12 Nat Opt Astro Obs 4/	35,582	0	35,582	0	0	0	0	0	0
13 Ames Laboratory	32,820	6,884	23,489	0	1,657	0	0	0	790
14 Software Engineering Inst	32,552	0	0	0	32,552	0	0	0	0
15 Continuous Elec Beam Aclr	30,076	0	28,455	0	1,621	0	0	0	0
16 Nat'l Radio Astron Obs 1/	26,706	0	26,706	0	0	0	0	0	0
17 Oak Ridge Assoc Univ 5/	11,840	0e	2,105e	333e	0e	8,316e	945e	141e	0e
18 Nat'l Astron & Ionos Ctr	9,332	0	7,620	1,712	0	0	0	0	0
19 Inst for Adv Tech	2,733	2,187	546	0	0	0	0	0	0
Total, 1st 19 insts.	5,248,676	1,797,173	2,017,123	339,434	838,191	191,166	945	21,417	43,227

1/ Associated Universities, Inc

2/ Universities Research Association

3/ University Corporation for Atmospheric Research

4/ Association of Universities for Research in Astronomy, Inc

5/ Oak Ridge Associated Universities

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

Table B-74. Total and federally financed R&D expenditures at university-administered federally funded research and development centers: fiscal years 1989-92

[Dollars in thousands]

Institution ranking	Total				Federally financed			
	1992	1991	1990	1989	1992	1991	1990	1989
Total, all institutions	5,248,676	5,078,544	4,831,971	4,729,612	5,199,391	5,034,126	4,791,517	4,692,202
1 Jet Propulsion Laboratory	1,136,966	1,105,617	1,065,848	1,078,776	1,136,966	1,105,617	1,065,848	1,078,776
2 Lawrence Livermore Lab	1,055,600	1,135,400	1,019,920	1,004,600	1,054,953	1,133,588	1,016,940	1,001,518
3 Los Alamos National Lab	1,011,005	947,550	928,006	902,361	993,839	930,101	909,628	888,534
4 Argonne Natl Laboratory	440,648	392,934	347,660	343,280	433,670	384,212	341,757	335,512
5 Lincoln Laboratory	364,212	389,453	419,093	364,086	364,212	389,453	419,093	364,086
6 Brookhaven Nat'l Lab 1/	298,112	283,903	263,931	255,206	298,112	283,903	263,931	255,206
7 Lawrence Berkeley Lab	239,405	207,856	196,059	193,183	227,414	195,865	185,009	184,338
8 Fermi Nat Accel Lab 2/	197,653	180,582	184,608	185,069	197,653	180,582	184,608	185,069
9 Stfrd Linear Accelrtr Ctr	117,715	113,932	115,160	108,710	117,715	113,932	115,160	108,710
10 Plasma Physics Laboratory	110,209	90,818	95,267	112,557	110,072	90,597	94,909	112,158
Total, 1st 10 insts.	4,971,525	4,848,045	4,633,552	4,547,828	4,934,606	4,807,850	4,596,883	4,513,907
11 Natl Ctr Atmos Res 3/	95,510	78,284	66,234	63,317	94,726	76,388	64,296	61,481
12 Nat Opt Astro Obs 4/	35,582	27,374	26,035	27,599	35,582	27,374	26,035	27,599
13 Ames Laboratory	32,820	26,403	23,275	21,769	32,820	26,403	23,275	21,769
14 Software Engineering Inst	32,552	27,139	24,294	20,900	32,552	27,139	24,294	20,900
15 Continuous Elec Beam Actr	30,076	28,590	21,352	13,228	29,275	27,464	20,331	12,202
16 Nat'l Radio Astron Obs 1/	26,706	21,872	19,836	18,492	26,706	21,872	19,836	18,492
17 Oak Ridge Assoc Univ 5/	11,840	10,430	9,471	8,751	11,194	9,500	8,722	8,146
18 Nat'l Astron & Ionos Ctr	9,332	8,078	7,922	7,728	9,200	7,988	7,845	7,706
19 Inst for Adv Tech	2,733	2,329	--	--	2,730	2,148	--	--
Total, 1st 19 insts.	5,248,676	5,078,544	4,831,971	4,729,612	5,199,391	5,034,126	4,791,517	4,692,202

1/ Associated Universities, Inc

2/ Universities Research Association

3/ University Corporation for Atmospheric Research

4/ Association of Universities for Research in Astronomy, Inc

5/ Oak Ridge Associated Universities

NOTE: A number of institutions have developed, or are in the process of developing new computer systems and methodologies that enable them to report more accurately the total cost of science and engineering research; therefore, fiscal year 1992 comparisons with data reported in earlier years may be inappropriate.

KEY: c = confidential
e = estimated
i = imputed
-- = not available

SOURCE: National Science Foundation/SRS, Survey of Scientific and Engineering Expenditures at Universities and Colleges

SECTION C.
UNIVERSITY-ADMINISTERED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS: FY 1992

Department of Defense

Institute for Advanced Technology
(University of Texas)
Lincoln Laboratory
(Massachusetts Institute of Technology)
Software Engineering Institute
(Carnegie Mellon University)

Department of Energy

Ames Laboratory
(Iowa State University of Science and Technology)
Argonne National Laboratory
(University of Chicago and
Argonne Universities Association)
Brookhaven National Laboratory
(Associated Universities, Inc.)
Continuous Electron Beam Accelerator Facility
(Southeastern Universities Research Association)
E.O. Lawrence Berkeley Laboratory
(University of California)
E.O. Lawrence Livermore Laboratory
(University of California)
Fermi National Accelerator Laboratory
(Universities Research Association)
Los Alamos Scientific Laboratory
(University of California)
Oak Ridge Institute of Nuclear Studies
(Oak Ridge Associated Universities)
Plasma Physics Laboratory
(Princeton University)
Stanford Linear Accelerator Center
(Stanford University)

National Aeronautics and Space Administration

Jet Propulsion Laboratory
(California Institute of Technology)

National Science Foundation

National Astronomy and Ionosphere Center
(Cornell University)
National Center for Atmospheric Research
(University Corporation for Atmospheric
Research)
National Optical Astronomy Observatory
(Association of Universities for Research in
Astronomy, Inc.)
National Radio Astronomy Observatory
(Associated Universities, Inc.)

SECTION D.

SURVEY INSTRUMENTS

Item *Page*

Cover letter 191

Survey form and crosswalk 193

Optional survey item 199

NATIONAL SCIENCE FOUNDATION
WASHINGTON, D.C. 20550

Dear Colleague:

The National Science Foundation (NSF) requests your participation in the annual Survey of Scientific and Engineering (S&E) Expenditures at Universities and Colleges, Fiscal Year 1992. This national effort, one of a series that covers S&E resources at academic institutions, collects data on current fund expenditures for separately budgeted research and development by S&E field and source of funds and on current fund expenditures for related research equipment.

The survey data are solicited under the authority of the National Science Foundation Act of 1950, as amended, and are for statistical use only. These data are used by Congress, other Federal and State governmental planners, and the academic sector to assess the adequacy of the nation's research base. By contributing timely and accurate information to this survey, you can ensure that your institution is represented in data used by these decisionmakers. You may also find the data useful to your own institution for internal and/or peer analyses.

The survey results are representative of the national population of institutions that grant graduate S&E degrees and/or annually expend at least $50,000 in separately budgeted research and development funds. While participation is voluntary and failure to respond will not have any adverse effect upon your institution, the reliability of the data and therefore the soundness of institutional, State, and national decisions based upon them are in large measure contingent upon receipt of complete and accurate data from all surveyed institutions.

The survey questionnaire is due on January 8, 1993. This packet contains the following items, several of which are described in greater detail in the subsequent text:

1. *Postcard to notify NSF of package receipt and to request an Automated Survey Questionnaire (ASQ)*
2. *"FYI" flyer describing the NSF academic survey system*
3. *1992 S&E Expenditures Survey Form 411, with instructions and NSF/NCES crosswalk*
4. *1992 Optional Item 1 Survey Form*
5. *Facsimile showing data reported on the FY (fiscal year) 1989-91 surveys*
6. *Envelope for returning the completed survey form*

POSTCARD

As soon as you receive this survey package, please let us know by filling out and mailing the enclosed postcard and by stating on the postcard the name and telephone number of the person responsible for completing the survey form.

THE 1992 SURVEY FORM 411 WITH INSTRUCTIONS AND NSF/NCES CROSSWALK

The data items requested on the 1992 survey form are identical to those on the 1991 form. The NSF/NCES Crosswalk on the last two pages of the survey instrument relates NSF's S&E fields to the codes defined by the Department of Education's National Center for Education Statistics (NCES) in its publication *A Classification of Instructional Programs*. It is provided to aid respondents whose institutional recordkeeping systems are organized according to NCES classifications.

Response burden information that is requested involves estimating the average number of hours required to complete the survey. A survey-form facsimile that shows prior years' data received from your institution or imputed by NSF is enclosed for your information.

OPTIONAL ITEM 1 SURVEY FORM: CURRENT FUND EXPENDITURES BY SOURCE OF FUNDS

We are again including an optional format for Item 1 (Current Fund Expenditures for Separately Budgeted Research and Development in the Sciences and Engineering, by Source of Funds). This alternative format may become part of the survey questionnaire in FY 1993, but it remains optional this year.

To help NSF better evaluate this proposed change, please complete the item and return it with the rest of the survey questionnaire. Please refer to the back of the optional item for instructions. All data reported for individual institutions on the optional item 1 are **STRICTLY CONFIDENTIAL. These data will not be published or available on any basis to the public; they will be used only for internal analytic purposes.**

AUTOMATED SURVEY QUESTIONNAIRE

An automated survey questionnaire (ASQ) has been developed to provide respondents with the opportunity to edit their data submissions (for both arithmetical and trend errors) prior to sending them to NSF. Requirements for using ASQ include an IBM PC or compatible computer system and DOS 3.0 or a more recent upgrade. *If you would like to receive ASQ (provided on diskette), please use the return postcard to request it.*

If questions arise when completing the survey form, or if you wish further information regarding our publications/diskettes, please call Ms. Marge Machen of NSF at (202) 634-4673. Thank you for your efforts in providing timely and meaningful statistics to NSF.

Sincerely,

Eileen L. Collins

Eileen L. Collins, Ph.D., Program Director
Science and Engineering Activities Program
Division of Science Resources Studies

Enclosures

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NSF Form 411 (10-92)

FORM APPROVED
OMB No. 3145-0100
Expiration Date: 12/31/92

NATIONAL SCIENCE FOUNDATION
Washington, D.C. 20550

SURVEY OF SCIENTIFIC AND ENGINEERING EXPENDITURES AT UNIVERSITIES AND COLLEGES, FY 1992

Organizations are requested to complete and return this form to:

National Science Foundation
Attn: SRS/ACT
1800 G Street, NW; Room L-609
Washington, DC 20550

This form should be returned by January 8, 1993. Your cooperation in returning the survey questionnaire promptly is very important.

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. All information you provide will be used for statistical purposes only. Your response is entirely voluntary and your failure to provide some or all of the information will in no way adversely affect your institution.

All financial data requested on this form should be reported in thousands of dollars; for example, an expenditure of $25,342 should be rounded to the nearest thousand dollars and reported as $25.

Where exact data are not available, estimates are acceptable. Your estimates will be better than ours.

Include data for branches and all organizational units of your institution, such as medical schools and agricultural experiment stations. Data on research centers and facilities administered by your institution should be included. In addition, include hospitals or clinics owned, operated, or controlled by universities, and integrated operationally with the clinical programs of your medical schools. **Exclude** data for federally funded research and development centers (FFRDCs). Data for these facilities are collected separately.

Date Submitted_____

Please correct if name or address has changed

If you have any questions please contact Margo Mashon of NSF at (202) 634-4673.

Financial data are requested for your institution's 1992 fiscal year.

Please circle the month in which your institution's fiscal year begins:

1	2	3	4	5	6	7	8	9	10	11	12
JAN											DEC

It is estimated that response to this survey will require 19 hours. If you wish to comment on this burden, please contact Herman Fleming at (202) 357-9520.

How many person hours were required to complete this form?_____

Scope:

This survey collects data on expenditures by universities and colleges for separately budgeted research and development (R&D) in science and engineering. Definitions used are compatible with OMB Circular A-21, revised July 23, 1992. Items 1 and 2 ask for *current fund expenditures* by source of funds and by field of science & engineering. Item 3 collects data on that *portion of current fund expenditures* reported in items 1 and 2 that went for the purchase of scientific and engineering research equipment.

Definitions:

Research and Development (R&D). R&D for purposes of this survey is the same as "organized research" as defined in Section B.1.b. of OMB Circular A-21 (revised). It includes all R&D activities of an institution that are *separately budgeted and accounted for.* R&D includes both "sponsored research" activities (sponsored by Federal and non-Federal agencies and organizations) and "university research" (separately budgeted under an internal application of institutional funds).

Research is a systematic study directed toward fuller knowledge or understanding of the subject studied. Research is classified as either basic or applied, according to the objectives of the investigator.

Development is systematic use of the knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes.

Current fund expenditures. Expenditures of funds available for current operations. Such expenditures include all unrestricted gifts and restricted current funds to the extent that such funds were expended for current operating purposes.

PLEASE TYPE OR PRINT NAME OF PERSON SUBMITTING THIS FORM	TITLE	AREA CODE	EXCH.	NO.	EXT.

NAME OF PERSON WHO PREPARED THIS SUBMISSION (*if different from above*)	TITLE	AREA CODE	EXCH.	NO.	EXT.

Instructions for Items 1 and 2

Separately budgeted research and development (R&D) includes all funds expended for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution. *Include* research equipment purchased under research project awards from "current fund" accounts. Also *include* research funds subcontracted to outside organizations. *Exclude* training grants, public service grants, demonstration projects, and departmental research expenditures that are not separately budgeted. Also, *exclude* any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science fields. Allocate funding to the original sources whenever possible, as specified below. If this information is unknown, report the proximate funding source.

(1) *Total*

a. *Federal Government.* Report grants and contracts for R&D (including direct and reimbursed indirect costs) by all agencies of the Federal Government.

b. *State and local governments.* Include funds for R&D from State, county, municipal, or other local governments and their agencies. Include here State funds which support R&D at agricultural and other experiment stations.

c. *Industry.* Include all grants and contracts for R&D from profitmaking organizations, whether engaged in production, distribution, research, service, or other activities. Do not include grants and contracts from nonprofit foundations financed by industry; these should be reported under *All other sources* (line 1175).

d. *Institution funds.* Report funds, including indirect costs, which your institution spent for R&D activities from the following sources: (1) General-purpose State or local government appropriations (i.e., unrestricted funds); (2) general-purpose grants from industry, foundations, or other outside sources; (3) tuition and fees; (4) endowment income. In addition, estimate your institution's contribution to unreimbursed indirect costs incurred in association with R&D projects financed by outside organizations, and mandatory and voluntary cost sharing on Federal and other grants. To estimate unreimbursed indirect costs, use your actual university indirect cost rate (rather than the proposed rate) multiplied by the base (e.g., direct salaries and wages, etc.) minus actual indirect cost recoveries. (i.e. Underrecovery = {[Actual Indirect Cost Rate × Research Base (salaries, wages, and direct cost items, but excluding indirect cost recoveries)] − Indirect Costs Collected}). If your institution now separately budgets what was previously classified as departmental research, include these data in line 1161.

e. *All other sources.* Include grants for R&D from nonprofit foundations and voluntary health agencies as well as from all other sources not elsewhere classified. Funds from foundations which are affiliated with, or granted solely to your institution, should be included under line 1160, "Institution funds." Funds for R&D received from a health agency that is a unit of a State or local government should be reported under "State and local governments" (line 1125). Also include gifts from individuals that are restricted by the donor to research.

(2) *Basic research.* **Please provide the percentages of total and Federal expenditures that are basic research (not applied research) as defined in column (2) below.**

Instructions for Item 3

Please report that portion of current fund expenditures reported in items 1 and 2 that went for the purchase of research equipment. This includes all research equipment purchased under sponsored research project awards from current fund accounts.

For column (1) report current fund expenditures for R&D from all sources: Federal Government, State, county, municipal or other governments and their agencies (including State funds supporting R&D at agricultural experiment stations); industry; institution funds; and private foundations and voluntary health agencies, individuals, and associations.

For column (2) include funds from grants and contracts for R&D sponsored by agencies of the Federal Government.

ITEM 1. CURRENT FUND EXPENDITURES FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT IN THE SCIENCES AND ENGINEERING, BY SOURCE OF FUNDS: FY 1992 (Include indirect costs)

Source of funds	Line No.	(1) Total (Dollars in thousands)	(2) Basic research (Percent of column 1)
a. Federal Government	1110	$	_____ %
b. State and local governments	1125		**Basic research** is directed toward an increase of knowledge; it is research where the primary aim of the investigator is a fuller knowledge or understanding of the subject under study rather than a specific application thereof.
c. Industry	1150		
d. Institution funds	1160		
(1) Separately budgeted	1161		
(2) Underrecovery of indirect costs and cost sharing	1162		
e. All other sources	1175		
f. TOTAL (sum of a through e)	1100	$	_____ %

CONFIDENTIALITY Information received from individual institutions in lines 1161 and 1162, or estimates for basic research expenditures, will not be published or released; only aggregate totals will appear in tabulations.

Note: Total R&D expenditures reported in line 1100, column (1) and line 1400, column (1) should be the same.
Federally financed R&D expenditures reported in line 1110, column (1) and line 1400, column (2) should be the same.

ITEM 2. CURRENT FUND EXPENDITURES (TOTAL AND FEDERALLY FINANCED) FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT, BY FIELD OF SCIENCE AND ENGINEERING: FY 1992 (Include indirect costs)*

Field of science & engineering	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
a. ENGINEERING (TOTAL)	1410		
(1) Aeronautical & astronautical	1411		
(2) Chemical	1412		
(3) Civil	1413		
(4) Electrical	1414		
(5) Mechanical	1415		
(6) Metallurgical & materials	1417		
(7) Other	1416		
b. PHYSICAL SCIENCES (TOTAL)	1420		
(1) Astronomy	1421		
(2) Chemistry	1422		
(3) Physics	1423		
(4) Other	1424		
c. ENVIRONMENTAL SCIENCES (TOTAL)	1430		
(1) Atmospheric	1431		
(2) Earth sciences	1432		
(3) Oceanography	1433		
(4) Other	1434		
d. MATHEMATICAL SCIENCES (TOTAL)	1441		
e. COMPUTER SCIENCES (TOTAL)	1442		
f. LIFE SCIENCES (TOTAL)	1450		
(1) Agricultural	1451		
(2) Biological	1452		
(3) Medical	1453		
(4) Other	1454		
g. PSYCHOLOGY (TOTAL)	1460		
h. SOCIAL SCIENCES (TOTAL)	1470		
(1) Economics	1471		
(2) Political science	1472		
(3) Sociology	1473		
(4) Other	1474		
i. OTHER SCIENCES, not elsewhere classified (TOTAL)	1480		
j. TOTAL (sum of a through i)	1400		

*PLEASE EXCLUDE from your response any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science and engineering fields.

ITEM 3. CURRENT FUND EXPENDITURES FOR RESEARCH EQUIPMENT (TOTAL AND FEDERALLY FINANCED) FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT, BY FIELD OF SCIENCE AND ENGINEERING: FY 1982*

Field of science & engineering	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
a. ENGINEERING (TOTAL)	1810		
(1) Aeronautical & astronautical	1811		
(2) Chemical	1812		
(3) Civil	1813		
(4) Electrical	1814		
(5) Mechanical	1815		
(6) Metallurgical & materials	1817		
(7) Other	1816		
b. PHYSICAL SCIENCES (TOTAL)	1820		
(1) Astronomy	1821		
(2) Chemistry	1822		
(3) Physics	1823		
(4) Other	1824		
c. ENVIRONMENTAL SCIENCES (TOTAL)	1830		
(1) Atmospheric	1831		
(2) Earth sciences	1832		
(3) Oceanography	1833		
(4) Other	1834		
d. MATHEMATICAL SCIENCES (TOTAL)	1841		
e. COMPUTER SCIENCES (TOTAL)	1842		
f. LIFE SCIENCES (TOTAL)	1850		
(1) Agricultural	1851		
(2) Biological	1852		
(3) Medical	1853		
(4) Other	1854		
g. PSYCHOLOGY (TOTAL)	1860		
h. SOCIAL SCIENCES (TOTAL)	1870		
(1) Economics	1871		
(2) Political science	1872		
(3) Sociology	1873		
(4) Other	1874		
i. OTHER SCIENCES, not elsewhere classified (TOTAL)	1880		
j. TOTAL (sum of a through i)	1800		

*Current fund expenditures in each field for scientific research equipment should be a subset of the "Total" and "Federal" column reported in item 2.

CROSSWALK BETWEEN NSF FIELDS OF SCIENCE & ENGINEERING AND THE NATIONAL CENTER FOR EDUCATION STATISTICS (NCES) CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

The left-hand column shows each of the detailed fields as displayed on the questionnaire form. The right-hand column shows the NCES fields which are included within the NSF category as well as some additional illustrative disciplines. These additional disciplines are intended to be guidelines – not sharp definitions – as to what should be reported under a particular field.

Questionnaire Field	NCES Classification and Additional Illustrative Disciplines
a. ENGINEERING (1) Aeronautical & Astronautical	14.02 Aerospace, Aeronautical, & Astronautical Eng. (also aerodynamics, space technology)
(2) Chemical	03.0509 Wood Science; 14.07 Chemical Eng.; 14.25 Petroleum Eng. (also petroleum refining process); 14.32 Polymer/Plastics Eng.
(3) Civil	04.02 Architecture; 14.04 Architectural Eng.; 14.08 Civil Eng. 14.14 Environmental/Environmental Health Eng. (also geotechnical, hydraulic, hydrologic, sanitary & environmental, structural, transportation)
(4) Electrical	14.09 Computer Eng.; 14.10 Electrical, Electronics, & Communications Eng. (also power eng.)
(5) Mechanical	14.11 Engineering Mechanics; 14.19 Mechanical Eng.
(6) Metallurgical & Materials	14.06 Ceramic Sciences & Eng.; 14.15 Geological Eng.; 14.16 Geophysical Eng. 14.18 Materials Eng.; 14.20 Metallurgical Eng.; 14.21 Mining & Mineral Eng. 14.28 Textile Sciences & Eng.; 14.31 Materials Science; 40.0701 Metallurgy (also welding)
(7) Other	14.01 Engineering, General; 14.03 Agricultural Eng.; 14.05 Bioengineering & Biomedical Eng. 14.12 Engineering Physics; 14.13 Engineering Science 14.17 Industrial/Manufacturing Eng.; 14.22 Naval Architecture & Marine Eng.; 14.23 Nuclear Eng. 14.24 Ocean Eng.; 14.27 Systems Eng. 14.29 Engineering Design; 14.30 Eng./Industrial Management; 14.99 Engineering, Other 30.08 Systems Science & Theory (also marine & ocean engineering systems)
b. PHYSICAL SCIENCES (1) Astronomy	40.02 Astronomy; 40.03 Astrophysics (also Gamma-ray, neutrino, optical & radio, X-ray)
(2) Chemistry	40.05 Chemistry (also analytical, inorganic, organic, organo-metallic, pharmaceutical, physical, polymer sciences (except biochemistry))
(3) Physics	40.08 Physics (also acoustics, atomic/molecular, chemical, condensed matter, elementary particles, nuclear structure, optics, plasma, theoretical/mathematical)
(4) Other	40.01 Physical Sciences, General; 40.0799 Miscellaneous Physical Sciences, Other; 40.99 Physical Sciences, Other (used for multidisciplinary projects within physical sciences and for disciplines not requested separately)
c. ENVIRONMENTAL SCIENCES (Earth, Atmospheric, and Ocean) (1) Atmospheric	40.04 Atmospheric Sciences & Meteorology (also aeronomy, extraterrestrial atmospheres, solar, weather modification)
(2) Earth Sciences	15.1102 Surveying; 40.06 Geological & Related Sciences 40.0703 Earth & Planetary Sciences; 45.0702 Cartography (also engineering geophysics, general geology, geodesy & gravity, geomagnetism, hydrology, inorganic, isotopic, lab geophysics, organic geochemistry, paleomagnetism, paleontology, physical geography, seismology)
(3) Oceanography Sciences	26.0807 Marine/Aquatic Biology; 40.0702 Oceanography (also biological, chemical, geological, physical)
(4) Other	(used for multidisciplinary projects within Earth, Atmospheric, and Ocean Sciences)
d. MATHEMATICAL SCIENCES	27.01 Mathematics, General; 27.03 Applied Mathematics; 27.0302 Operations Research 27.05 Mathematical Statistics; 27.99 Mathematics, Other; 30.08 Math./Computer Sci. (also algebra, analysis, foundations & logic, geometry, numerical analysis, topology)
e. COMPUTER SCIENCES	11 Computer & Information Science, General; 52.1201 Management Information Systems (also design, development, and application of computer capabilities to data storage and manipulation, information science)

f. LIFE SCIENCES			
(1) Agricultural	01.03 Agricultural Production	01.0307 Aquaculture	01.07 International Agriculture
	02.01 Agricultural Sciences	02.04 Plant Sciences	02.05 Soil Science
	03 Renewable Natural Resources	04.06 Landscape Architecture	
	(also agricultural chemistry, agronomy, animal science, conservation, fish & wildlife, forestry, horticulture)		
(2) Biological	19.05 Foods & Nutrition Studies	26.01 Biology, General	26.0202 Biochemistry
	26.0203 Biophysics	26.03 Botany	26.04 Cell & Molecular Biology
	26.05 Microbiol./Bacteriology	26.0801 Anatomy	26.0803 Ecology
	26.0809 Nutritional Sciences	26.0810 Parasitology	26.0812 Toxicology
	26.0813 Genetics, Plant & Animal	26.0814 Biometrics	26.0815 Biostatistics
	26.0899 Misc.Bio.Specializations, Other	26.0701 Zoology	26.0702 Entomology
	26.0704 Pathology, Human & Animal	26.0705 Pharmacology, Human & Animal	26.0706 Physiology, Human & Animal
	26.0799 Zoology, Other	51.1301 Medical Anatomy	51.1302 Medical Biochemistry
	26.99 Biolog./Life Sciences, Other	51.1308 Medical Microbiology	51.1312 Medical Pathology
	51.1307 Medical Immunology	51.1314 Medical Toxicology	51.2203 Epidemiology
	51.1313 Medical Physiology		
	(also allergies & immunology, biogeography, biotechnology, pathology, physical anthropology, virology)		
(3) Medical	26.0808 Neurosciences	26.0811 Radiation Biology/Radiobiol.	51.04 Dentistry
	51.1201 Medicine, General	51.1399 Med. Basic Sciences, Other	51.1610 Nursing Psychiatry/ Mental Health
	51.17 Optometry	51.19 Osteopathic Medicine	
	51.20 Pharmacy	51.21 Podiatry	51.22 Public Health
	51.24 Veterinary Medicine[1]		
	Anesthesiology	Cardiology	Colon & Rectal Surgery
	Dental/Oral Surgery	Dermatology	Family Medicine
	Gastroenterology	General Surgery	Geriatric Medicine
	Hematology	Internal Medicine	Medical Programs, Other
	Neonatal-Perinatal Medicine	Neurological Surgery	Neurology
	Nuclear Medicine	Nuclear Radiology	Obstetrics & Gynecology
	Oncology	Ophthalmology	Orthopedics/Ortho. Surgery
	Otorhinolaryngology	Pediatrics	Pharmacology
	Physical & Rehabilitative Medicine	Plastic Surgery	Preventive Medicine
	Psychiatry	Thoracic Surgery	Urology
	(exclude all residency programs)		
(4) Other	30.11 Gerontology	51.02 Communication Disorders Sciences & Services	51.07 Health & Medical Admin. Services
	51.10 Health & Medical Laboratory Technologies	51.16 Nursing Technologies	51.2308 Occupational Therapy
	51.2308 Physical Therapy	51.2399 Rehabilitation/Therapeutic Services	51.99 Health Professions & Related Services, Other
	(used for multidisciplinary projects within life sciences)		
g. PSYCHOLOGY	42.01 Psychology, General	42.02 Clinical Psychology	42.17 School Psychology
	51.2301 Art Therapy		
	(also animal behavior, educational, experimental, human development & personality, social)		
h. SOCIAL SCIENCES			
(1) Economics	01.0103 Agricultural Economics	45.06 Economics	52.06 Bus./Managerial Econ.
	(also applied, development, econometrics, industrial, international, labor, public finance & fiscal policy, quantitative, resource)		
(2) Political Science	44.04 Public Administration	44.05 Public Policy Analysis	
	44.99 Public Admin. & Services, Other	45.09 International Relations & Affairs	
	45.10 Political Science & Government		
	(also comparative government, legal systems, political theory, regional studies)		
(3) Sociology	45.02 Anthropology (Social & Cultural only)	45.05 Demography & Population Studies	45.11 Sociology
	(also comparative & historical, complex organizations, cultural & social structure, group interactions, social problems & welfare theory)		
(4) Other	04.03 City/Urban, Community & Regional Planning	05 Area & Ethnic Studies	16.0102 Linguistics
	45.01 Social Sciences, General	43.01 Criminal Justice & Corrections	44.02 Community Services
	45.12 Urban Studies/Affairs	45.03 Archaeology	45.07 Geography
	(also history of science, socioeconomic geography)	45.99 Social Sciences, Other	
i. OTHER SCIENCES, n.e.c.	(used when the multidisciplinary and interdisciplinary aspects make the classification under one primary field impossible)		

[1] Institutions with schools of veterinary medicine should distribute R&D expenditures among the appropriate disciplines (agricultural, biological, and medical) rather than only in medical sciences.

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NATIONAL SCIENCE FOUNDATION
Washington, D.C. 20050

Survey of Scientific and Engineering Expenditures at Universities and Colleges, FY 1992

OPTIONAL ITEM 1

Current Fund Expenditures for Separately Budgeted R&D in the Sciences and Engineering, by Source of Funds, FY 1992

This year the National Science Foundation is conducting a revision to Item 1 of its Survey of Scientific and Engineering Expenditures at Universities and Colleges (R&D Expenditures survey). This revision may become part of the general survey instrument in FY 1993. In accordance with agreements concerning the R&D Expenditures survey, the revised version is being included as an optional item with the FY 1992 survey. This will allow universities and colleges an opportunity to prepare for and comment on the change in items.

To help NSF better evaluate the implications of this revision, please complete and return the optional item printed below. All data reported here are STRICTLY CONFIDENTIAL. These data will NOT be published or available on any basis to the public; they will be used only for internal analytic purposes. In addition, NSF would appreciate your comments about reporting in the optional format as opposed to the survey format.

Please read the instructions on the reverse side of this page before completing the optional item. Thank you for your continued efforts in providing timely and meaningful statistics to NSF.

ITEM 1A:

Source of Funds	Line No.	Column (1) Total (Dollars in thousands)	Column (2) Basic Research (Percent of Column 1)
a. Federal Government	1110		_____ %
b. State and local governments	1125		
c. Industry	1150		
d. Institution funds *(sum of lines 1161, 1162, and 1163)*	1160		
(1) Institutionally financed organized research	1161		
(2) Unreimbursed indirect costs	1162		
(3) Cost sharing *includes:* ☐ *Mandatory* ☐ *Voluntary* ☐ *Both*	1163		
e. All other sources	1175		
f. TOTAL *(sum of a through e)*	1100	$	_____ %

BASIC RESEARCH is directed toward an increase of knowledge; it is research in which the primary aim of the investigator is a fuller knowledge or understanding of the subject under study, rather than a specific application thereof.

ITEM 1B:

Please give the amount of total R&D expenditures (line 1100) funded through Nondepartmental Organized Research Units _____ (dollars in thousands).

Please give the amount of Federally financed R&D expenditures (line 1110) funded through Nondepartmental Organized Research Units _____ (dollars in thousands).

Instructions for Optional Item 1

Separately budgeted research and development (R&D) includes all funds expended for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution.

INCLUDE research equipment purchased under research project awards from "current fund" accounts. Also *INCLUDE* research funds for which an outside organization, academic or other, is a subrecipient. *EXCLUDE* training grants, public service grants, demonstration projects, and departmental research expenditures which are not separately budgeted. Also, *EXCLUDE* any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science fields. Allocate funding to the original sources whenever possible, as specified below. If this information is unknown, report the proximate funding source.

ITEM 1A:

Column (1): Total

a. FEDERAL GOVERNMENT (line 1110). Report awards for R&D (including direct and reimbursed indirect costs) by all agencies of the Federal Government.

b. STATE AND LOCAL GOVERNMENTS (line 1125). Include funds for R&D (including direct and reimbursed indirect costs) from State, county, municipal, and other local governments and their agencies. Include here State funds which support R&D at agricultural and other experiment stations.

c. INDUSTRY FUNDS (line 1150). Include all awards for R&D (including direct and reimbursed indirect costs) from profit-making organizations, whether engaged in production, distribution, research, service, or other activities. Do not include awards from nonprofit foundations financed by industry; these should be reported under "All other sources" (line 1175).

d. INSTITUTION FUNDS (line 1160). Report funds which your institution spent for R&D activities from the following sources: (1) general-purpose State and local government appropriations (i.e., unrestricted funds); (2) general-purpose grants from industry, foundations, or other outside sources; (3) tuition and fees; (4) endowment income; and (5) unrestricted gifts.

Institution funds (line 1160) should equal the sum of lines 1161 through 1163.

1. INSTITUTIONALLY FINANCED ORGANIZED RESEARCH (line 1161). Report those funds which are expended for research activities separately budgeted by the university. Do not include departmental research unless it is classified as separately budgeted organized research.

2. UNREIMBURSED INDIRECT COSTS (line 1162). Report the estimated contribution your institution made to unreimbursed indirect costs incurred in association with R&D projects financed by outside organizations, and institutionally financed organized research. Use the following formula:

Unreimbursed indirect costs *equal*
{[Actual (negotiated) **indirect cost rate** *multiplied by*
Research base (salaries, wages, and direct cost items, but excluding indirect cost recoveries)]
minus **Reimbursed indirect costs}**

3. COST SHARING (line 1163). Estimate your institution's contribution of cost sharing, both mandatory and voluntary, on Federal and other awards. Please indicate whether mandatory and voluntary cost sharing are reported.

e. ALL OTHER SOURCES (line 1175). Include awards for R&D (including direct and reimbursed indirect costs) from nonprofit foundations and voluntary health agencies as well as from all other sources not listed elsewhere. Funds from foundations which are affiliated with, or awarded solely to your institution, should be included under line 1160, "Institution funds." Funds for R&D received from a health agency which is a unit of a State or local government should be reported under "State and local governments" (line 1125). Also include gifts from individuals which were restricted by the donor to research.

Column (2): Basic Research

Distinguish the percent of Federal R&D which is basic (rather than applied) research and the percent of total R&D which is basic research, as defined in Column (2) on the reverse.

ITEM 1B: Nondepartmental Organized Research Units (ORUs) are defined as university-administered research centers and institutes which are not affiliated with any single academic department. Item 1B identifies those portions of total and Federal R&D expenditures which are funded through ORUs.

Item 1A, R&D sources of funding (a-f), should be the same for both the FY 1992 survey form and the optional item. ***Questions on optional item 1 can be directed to Marge Machen of NSF at (202) 634-4673.***